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and Housing Agency

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MTC Commissioner,  
Solano County and Cities

STEVE HEMINGER  
Executive Director

ALIX BOCKELMAN  
Deputy Executive Director, Policy

ANDREW B. FREMIER  
Deputy Executive Director, Operations

June 4, 2015

Addendum No. 2

To

Invitation For Bid (IFB)

I-680 Express Lanes Project

In Alameda and Contra Costa Counties on Route 680 PM

R20.1/21.9, R0.0/14.0

Dated April 28, 2015, as amended May 19, 2015.

Dear Bidder:

This letter is Addendum No. 2 to the Invitation for Bid I-680 Express Lanes Project, dated April 28, 2015 ("IFB"), as amended May 19, 2015. Where text is revised, deleted text is shown in strike-through format; added text is *italicized*. The RFP is revised as follows:

<u>Addendum Item</u>	<u>Reference</u>	<u>Change</u>										
1.	IFB, Part 1, <u>Notice to Bidders</u> , Bid Submission, Page 9	<b>Bid Submission &amp; Bid Opening</b> Interested bidders must submit their bids in sealed envelopes no later than <b>4:00 P.M. PST on June 5/12, 2015</b> . <b>Bids received after that date and time will not be considered. All bids must be completed and submitted on the enclosed Bid Forms, in Part 5 of this IFB, in order to be considered.</b> Bid Opening is open to the public and will be held at the due date and time listed above at BAIFA offices located at Joseph P. Bort Metro Center, 101 Eighth St, Oakland CA, 94607, in the Fishbowl Conference Room										
2.	IFB, Part 1, <u>Notice to Bidders</u> , BAIFA Bidder Selection Time Table, Page 11	<b><u>Bidder Selection Timetable</u></b>  <table><tr><td><b>10:00 a.m. PST, Wednesday, May 20, 2015</b></td><td>Mandatory Pre-Bid Conference</td></tr><tr><td><b>8:00 a.m. PST, Wednesday, May 27, 2015</b></td><td>Deadline for requests for clarification or exception</td></tr><tr><td><b>4:00 p.m. PST, Friday, June 5/12, 2015</b></td><td><b>Closing date &amp; time for receipt of bids &amp; bid opening</b></td></tr><tr><td>Wednesday, June 17, 2015</td><td>BAIFA consideration of recommendation for award</td></tr><tr><td><b>Wednesday, June 24, 2015*</b></td><td>Issuance of Notice of Award</td></tr></table> * Award and approval dates are approximates and are subject to change before or after the closing date of the IFB.	<b>10:00 a.m. PST, Wednesday, May 20, 2015</b>	Mandatory Pre-Bid Conference	<b>8:00 a.m. PST, Wednesday, May 27, 2015</b>	Deadline for requests for clarification or exception	<b>4:00 p.m. PST, Friday, June 5/12, 2015</b>	<b>Closing date &amp; time for receipt of bids &amp; bid opening</b>	Wednesday, June 17, 2015	BAIFA consideration of recommendation for award	<b>Wednesday, June 24, 2015*</b>	Issuance of Notice of Award
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3.	IFB, Part 3, <u>Instructions to Bidders</u> , Abbreviations, Page 23	<p><b>3.2 Abbreviations</b></p> <p>In addition to the Section 1-1.06, Abbreviations, of the Standard Specifications, each abbreviation signifies the following:</p> <table><tr><th>Abbreviation</th><th>Term</th></tr><tr><td>AAN</td><td>American Association of Nurserymen.</td></tr><tr><td>APHA</td><td>American Public Health Association.</td></tr><tr><td>API</td><td>American Petroleum Institute.</td></tr><tr><td>AREA</td><td>American Railway Engineering Association.</td></tr><tr><td>ASTM</td><td>American Society for Testing and Materials.</td></tr><tr><td>NECA</td><td>Standards for Construction</td></tr><tr><td>NESC</td><td>National Electrical Safety Code</td></tr><tr><td><i>TSI</i></td><td><i>Toll System Integrator</i></td></tr></table>	Abbreviation	Term	AAN	American Association of Nurserymen.	APHA	American Public Health Association.	API	American Petroleum Institute.	AREA	American Railway Engineering Association.	ASTM	American Society for Testing and Materials.	NECA	Standards for Construction	NESC	National Electrical Safety Code	<i>TSI</i>	<i>Toll System Integrator</i>
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4.	IFB, Part 5, <u>Bid Forms</u> , Bid Form #1, Pages 43 - 49	IFB, Part 5, <u>Bid Forms</u> , Bid Form #1, Page 43 is deleted in its entirety and replaced with the revised Bid Form #1 below.																		
5.	IFB, Part 5, <u>Bid Forms</u> , Bid Form #7, Pages 57 - 60	IFB, Part 5, <u>Bid Forms</u> , Bid Form #7, Insurance Certificate Checklist is deleted in its entirety and replaced with the revised Bid Form #9 below.																		
6.	IFB, Part 6, <u>Special Conditions</u> , SC-2, Insurance, Pages 62 – 66	IFB, Part 6, <u>Special Conditions</u> , SC-2, Insurance, Page 62 – 66 is deleted in its entirety and replaced with SC-2, Insurance below.																		



7.	IFB, Part 6, <u>Special</u> <u>Conditions</u> , SC- 7, Permits and Fees, Page 71	<p><b>The following paragraphs of SC-7 Permits and Fees are revised as follows:</b></p> <p><b>City of San Ramon Permit</b>  Apply for a City of San Ramon construction encroachment permit in your name within two (2) working days after the Notice to Proceed. You are responsible for preparing all necessary documents and all fees associated with getting the permit, <i>See Appendix D – San Ramon Encroachment Permit Application.</i></p> <p>Prior to Encroachment Permit issuance, you are responsible to submit a funding deposit of <i>twenty thousand dollars (\$20,000)</i> to pay for City staff time associated with the review of plans for the project, review of the Work, Action Plan, City engineering and inspection services during construction. The deposit will be used by the City as a draw-down account and you will replenish the account when funds are low. <i>Any unused funds from the draw down account will be refunded to the Contractor.</i></p> <p><b>Town of Danville Permit</b>  Apply for a Town of Danville construction encroachment permit in your name within two (2) working days after the Notice to Proceed. You are responsible for preparing all necessary documents and all fees associated with getting the permit, <i>See Appendix E – Town of Danville Encroachment Permit Application.</i></p> <p><b>Contra Costa County Permit</b>  Apply for a Contra Costa County construction encroachment permit in your name within two (2) working days after the Notice to Proceed. You are responsible for preparing all necessary documents and all fees associated with getting the permit, <i>See Appendix F – Contra Costa County Encroachment Permit Application.</i></p>
8.	IFB, Part 7, <u>General</u> <u>Conditions</u> , GC-10, Conflicts of Interest, page, 96	<p><b>GC-10 Conflicts of Interest</b>  The following paragraphs are added as the first two paragraphs in GC-10:</p> <p><i>Covenant that Contractor presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree or have the potential of conflicting with the performance of the services required on the Contract. Contractor further covenants that in the performance of the Contract no person having any such interest shall be employed.</i></p> <p><i>No member, officer, employee or agent of BAIFA, during his/her tenure shall have any prohibited interest as defined by California Government Code Sections 1090, et seq. and 87100 et seq., direct or indirect, in the Contract or the proceeds thereof. Prohibited interests include interests of immediate family members, domestic partners, and their employers or prospective employers. Accordingly, Contractor further covenants that it has made a complete disclosure to BAIFA of all facts of which it is aware upon due inquiry bearing on any possible interest, direct or indirect, which it believes any member, officer, agent or employee of BAIFA (or an immediate family member, domestic partner or employer or prospective employer of such member, officer agent or employee) presently has, or will have in the Contract, or in the performance thereof, or in any portion of the profits thereunder. Willful failure to make such disclosure, if any, shall constitute grounds for cancellation and termination hereof by BAIFA.</i></p>



9.	IFB, Part 7, <u>General</u> <u>Conditions</u> , GC-60, Force Account Payment, Page 115	The line below is deleted:  <del>60.1 Work Performed by Special Forces or Other Special Services</del>																																							
10.	IFB, Part 7, <u>General</u> <u>Conditions</u> , GC-62, Final Payment, Pages 120 - 121	<p><b>GC-62 Final Payment</b> Final payment does not become due until the following actions have been satisfactorily completed:</p> <ol style="list-style-type: none"> <li>1. Satisfactory completion of final inspection of all the Work under the Contract and the issuance by BAIFA of a Letter of Final Acceptance.</li> <li>2. The recording of a Notice of Completion by BAIFA.</li> <li>3. Contractor submittal to BAIFA of: <ol style="list-style-type: none"> <li>a. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work have been paid or otherwise satisfied, and</li> <li>b. A release of liens and claims arising out of the Contract, to the extent and in the form designated by BAIFA. If a claim remains unsatisfied after all payments are made, reimburse BAIFA for all monies that BAIFA may be compelled to pay in discharging the claim, including all costs and reasonable attorney's fees.</li> </ol> </li> </ol> <p>BAIFA may at its option and at any time retain out of any amounts due to you, sums sufficient to cover claims, filed pursuant to <del>Section 3179</del> <i>Section 8500</i> et seq. of the Civil Code.</p> <p>BAIFA will make final payment, including outstanding retention, within 30-60 calendar days of the recording of the Notice of Completion.</p> <p>The acceptance of final payment by you constitutes a waiver of all claims against BAIFA arising under the Contract.</p>																																							
11.	IFB, Part 10, <u>Construction</u> <u>Details</u> , Division I, General Provisions, 1 General, Add to section 1-1.01, page 133	<p style="text-align: center;"><b>Add to section 1-1.01:</b></p> <p style="text-align: center;"><b>Bid Items and Applicable Sections</b></p> <table border="1"> <thead> <tr> <th>Item code</th><th>Item description</th><th>Applicable section</th></tr> </thead> <tbody> <tr> <td>129102A</td><td>Temporary Alternative Crash Cushion</td><td>12</td></tr> <tr> <td>141010A</td><td>Temporary Wildlife Exclusion Fence (Type E)</td><td>14</td></tr> <tr> <td>150830A</td><td>Remove Edge Drain</td><td>15</td></tr> <tr> <td>150840A</td><td>Remove Underdrain</td><td>15</td></tr> <tr> <td>840510A</td><td>12" Thermoplastic Traffic Stripe</td><td>84</td></tr> <tr> <td>840524A</td><td>4" Thermoplastic Traffic Stripe (Broken 34-17)</td><td>84</td></tr> <tr> <td>846012A</td><td>Contrast Pavement Stripe Black Paint (Broken)</td><td>84</td></tr> <tr> <td>846012B</td><td>3" Contrast Pavement Stripe Black Paint (Solid)</td><td>84</td></tr> <tr> <td>860202A</td><td>Electronic Toll Systems</td><td>86</td></tr> <tr> <td>860401A</td><td>Lighting (BAIFA)</td><td>86</td></tr> <tr> <td>860202B</td><td><i>Backhaul Communications</i></td><td>86</td></tr> <tr> <td></td><td></td><td></td></tr> </tbody> </table>	Item code	Item description	Applicable section	129102A	Temporary Alternative Crash Cushion	12	141010A	Temporary Wildlife Exclusion Fence (Type E)	14	150830A	Remove Edge Drain	15	150840A	Remove Underdrain	15	840510A	12" Thermoplastic Traffic Stripe	84	840524A	4" Thermoplastic Traffic Stripe (Broken 34-17)	84	846012A	Contrast Pavement Stripe Black Paint (Broken)	84	846012B	3" Contrast Pavement Stripe Black Paint (Solid)	84	860202A	Electronic Toll Systems	86	860401A	Lighting (BAIFA)	86	860202B	<i>Backhaul Communications</i>	86			
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12.	IFB, Part 10, <u>Construction Details</u> , Section 5, Control of Work, insert as new first item, page 134	<p><i>Replace the 5th paragraph of section 5-1.13A with:</i></p> <p><i>Except for a building-construction non-federal-aid contract, perform work equaling at least 15 percent of the value of the original total bid with your employees and with equipment you own or rent, with or without operators.</i></p>
13.	IFB, Part 10, <u>Construction Details</u> , Division II, General Construction, 10 General, "Replace section 10-1.03 of the RSS for section 10-1 with:", 5 <sup>th</sup> Paragraph, first sentence Page 139	<p><del>The VTMS sign panels must be made available to the TSI before you install the whole assembly over the roadway in a secure warehouse environment located no more than 10 miles from the project site.</del> <i>The VTMS sign panels, prior to attaching them to the mounting beams bolted to the sign structure, must be made available to the TSI before you install the whole assembly over the roadway in a secure warehouse environment located no more than 20 miles from the project site. The size of the warehouse shall not be less than 5,000 sf.</i></p>
14.	IFB, Part 10, <u>Construction Details</u> , Division II, General Construction, 12 Temporary Traffic Control, "Replace section 12-2 with:", page 141 - 142	<p style="text-align: center;"><b>Replace section 12-2 with:</b></p> <p style="text-align: center;"><b><del>12-2 CONSTRUCTION PROJECT FUNDING SIGNS</del></b></p> <p><b><del>12-2.01 GENERAL</del></b></p> <p><del>Section 12-2 includes specifications for installing construction project funding signs.</del></p> <p><del>Construction project funding signs must comply with the details shown on the Department's Traffic Operations Web site.</del></p> <p><del>Keep construction project funding signs clean and in good repair at all times.</del></p> <p><b><del>12-2.02 MATERIALS</del></b></p> <p><del>Construction project funding signs must be wood post signs complying with section 56-4.</del></p> <p><del>Sign panels for construction project funding signs must be framed, single sheet aluminum panels complying with section 56-2.</del></p> <p><del>The background on construction project funding signs must be Type II retroreflective sheeting on the Authorized Material List for signing and delineation materials.</del></p> <p><del>The legend must be retroreflective, except for nonreflective black letters and numerals. The colors blue and orange must comply with PR Color no. 3 and no. 6, respectively, as specified in the Federal Highway Administration's <i>Color Tolerance Chart</i>.</del></p> <p><del>The legend for the type of project on construction project funding signs must read as follows:</del></p> <p style="text-align: center;"><b><del>HIGHWAY IMPROVEMENT</del></b></p> <p><del>The legend for the types of funding on construction project funding signs must read as follows and in the following order:</del></p> <p style="text-align: center;"><b><del>BAY AREA TOLL AUTHORITY (BATA) EXPRESS LANE FUNDS</del></b></p>



		<p><del>The legend for the year of completion on construction project funding signs must read as follows:</del></p> <p style="text-align: center;"><del>YEAR OF COMPLETION 2016</del></p> <p><del>The size of the legend on construction project funding signs must be as described. Do not add any additional information unless authorized.</del></p> <p><b><del>12-2.03 CONSTRUCTION</del></b></p> <p><del>Install 2 Type 2 construction project funding signs at the locations designated by the Engineer before starting major work activities visible to highway users.</del></p> <p><del>When authorized, remove and dispose of construction project funding signs upon completion of the project.</del></p> <p><b><del>12-2.04 PAYMENT</del></b></p> <p><del>Not Used</del></p>
16.	IFB, Appendix A, <u>Contract Drawings and Plans</u> , (see Supplemental Documents)	Appendix A, <u>Contract Drawings and Plans, Project Plan Sheets</u> : Project Plan Sheets 107, 112-115, 177, 182, 183, 207-209, 273, 274, 424, 428, 460, 549, 566A, 566B, 566C, 566D, 566E, 566F, 566G, 566H, 566I, 566J, 566K, 566L, 566M, 566N, 566O, , 566T, and 566U are deleted in their entirety and replaced with the attached <i>Appendix A, <u>Contract Drawings / Plans</u></i> .
17.	IFB, Add Appendix D – San Ramon Encroachment Permit Application	Add <i>Appendix D – San Ramon Encroachment Permit Application</i> , see below.
18.	IFB, Add Appendix E – Town of Danville, Encroachment Permit Application	Add <i>Appendix E – Town of Danville Encroachment Permit Application</i> , see below.
19.	IFB, Add Appendix F – Contra Costa County Encroachment Permit Application	Add <i>Appendix F – Contra Costa County Encroachment Permit Application</i> , see below.




The remaining provisions of the IFB remain unchanged. In the event of a conflict between this Addendum and the previous version(s), this Addendum takes precedence.

Any questions concerning this addendum to the IFB should be directed to Michael Brinton, Contracts Specialist, at (510) 817-5727 or [mbrinton@mtc.ca.gov](mailto:mbrinton@mtc.ca.gov).

Sincerely,

DocuSigned by:



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Andrew B. Fremier

Deputy Executive Director, Operations

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BID FORM #1

**BID FORM**

**CONTRACT NO. BAIFA-100**

**I-680 Express Lanes Project**

**FROM: BIDDER'S NAME** \_\_\_\_\_

**TO: THE BAY AREA INFRASTRUCTURE FINANCING AUTHORITY,**

In compliance with the **Invitation to Bid** for this project, the undersigned Bidder, being thoroughly familiar with the terms and conditions of the Contract Documents, hereby proposes and agrees fully to perform the work within the time stated and in strict accordance with the Contract Documents.

The Bidder hereby acknowledges receipt of the following Addenda to the Contract Documents:

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Bidder hereby incorporates by reference all provisions of the Contract Documents that follow this Bid Form.



**SCHEDULE OF QUANTITIES AND PRICES**  
**CONTRACT NO. BAIFA-100**  
**EA No. 04-3G9504**  
**I-680 Express Lanes Project**

The prices quoted below include all applicable taxes, fees, permits, delivery, the cost of Bonds, insurance, and other charges and expenses, direct or indirect, as required.

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	070030	Lead Compliance Plan	LS	1		
2	080050	Progress Schedule (Critical Path Method)	LS	1		
3	090100	Time-Related Overhead (WDAY)	WDAY	300		
4	120090	Construction Area Signs	LS	1		
5	120100	Traffic Control System	LS	1		
6	120120	Type III Barricade	EA	99		
7	120165	Channelizer (Surface Mounted)	EA	1,450		
8	120300	Temporary Pavement Marker	EA	520		
9	121161	Temporary Terminal Section (Type K)	EA	64		
10	128652	Portable Changeable Message Sign (LS)	LS	1		
11	129000	Temporary Railing (Type K)	LF	34,400		
12	129100	Temporary Crash Cushion Module	EA	182		
13	129102A	Temporary Alternative Crash Cushion	EA	1		
14	130100	Job Site Management	LS	1		
15	130200	Prepare Water Pollution Control Program	LS	1		
16	130620	Temporary Drainage Inlet Protection	EA	62		
17	130640	Temporary Fiber Roll	LA	810		
18	130730	Street Sweeping	LS	1		
19	130800	Temporary Active Treatment System	LS	1		
20	130900	Temporary Concrete Washout	LS	1		
21	141000	Temporary Fence (Type ESA)	LF	74,600		
22	141010A	Temporary Fence (Wildlife Exclusion Type E)	LF	11,500		
23	141103	Remove Yellow Thermoplastic Traffic Stripe (Hazardous Waste)	LF	1,220		
24	141120	Treated Wood Waste	LB	4,350		
25	148005	Noise Monitoring	LS	1		
26	150661	Remove Guardrail	LF	310		
27	150714	Remove Thermoplastic Traffic Stripe	LF	6,090		
28	150715	Remove Thermoplastic Pavement Marking	SQFT	2,810		
29	150722	Remove Pavement Marker	EA	3,500		
30	150742	Remove Roadside Sign	EA	25		
31	150748	Remove Roadside Sign Panel	EA	81		
32	150771	Remove Asphalt Concrete Dike	LF	960		
33	150812	Remove Pipe (LF)	LF	1,090		
34	150820	Remove Inlet	EA	2		
35	150830A	Remove Edge Drain	LF	1,160		



Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
36	150840A	Remove Underdrain	LF	780		
37	153103	Cold Plane Asphalt Concrete Pavement	SQYD	7,340		
38	153210	Remove Concrete	CY	5		
39	153221	Remove Concrete Barrier	LF	5,840		
40	155231	Culvert Slurry-Cement Backfill	CY	1,410		
41	190101	Roadway Excavation	CY	380		
42	190105	Roadway Excavation (Type Z-2) (Aerially Deposited Lead)	CY	120		
43	193001	Structure Backfill	CY	1,740		
44	210350	Fiber Rolls	LF	810		
45	210600	Compost	SQFT	87,200		
46	390132	Hot Mix Asphalt (Type A)	TON	1,860		
47	394074	Place Hot Mix Asphalt Dike (Type C)	LF	350		
48	394076	Place Hot Mix Asphalt Dike (Type E)	LF	280		
49	394077	Place Hot Mix Asphalt Dike (Type F)	LF	360		
50	510502 (F)	Minor Concrete (Minor Structure)	CY	39		
51	510526	Minor Concrete (backfill)	CY	720		
52	560208 (F)	Furnish Sign Structure (Tubular)	LB	26,300		
53	560209 (F)	Install Sign Structure (Tubular)	LB	26,300		
54	560218 (F)	Furnish Sign Structure (Truss)	LB	476,900		
55	560219 (F)	Install Sign Structure (Truss)	LB	476,900		
56	560244	Furnish Laminated Panel Sign (1"- Type A)	SQFT	9,820		
57	560248	Furnish Single Sheet Aluminum Sign (0.063"-Unframed)	SQFT	1,630		
58	561014	54" Cast-in-Drilled-Hole Concrete Pile (Sign Foundation)	LF	50		
59	561016	60" Cast-in-Drilled-Hole Concrete Pile (Sign Foundation)	LF	940		
60	562002	Metal (Barrier Mounted Sign)	LB	450		
61	568001	Install Sign (Strap and Saddle Bracket Method)	EA	44		
62	568017	Install Roadside Sign Panel on Existing Post	EA	78		
63	597600	Prepare and Paint Concrete	SQFT	10		
64	620100	18" Alternative Pipe Culvert	LF	730		
65	620180	30" Alternative Pipe Culvert	LF	180		
66	620260	42" Alternative Pipe Culvert	LF	370		
67	665718	18" Slotted Corrugated Steel Pipe (.168" Thick)	LF	220		
68	681103	3" Plastic Pipe (Edge Drain)	LF	1,090		
69	682045	Class 3 Permeable Material	CY	190		
70	685020	8" Alternative Pipe Underdrain	LF	560		
71	731502	Minor Concrete (Miscellaneous Construction)	CY	25		
72	750001 (F)	Miscellaneous Iron And Steel	LB	4,460		
73	820130	Object Marker	EA	470		



Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
74	832007	Midwest Guardrail System (Wood Post)	LF	650		
75	832070	Vegetation Control (Minor Concrete)	SQYD	580		
76	839221	Double Midwest Guardrail System (Wood Post)	LF	25		
77	839543	Transition Railing (Type WB-31)	EA	1		
78	839576	End Cap (Type A)	EA	1		
79	839581	End Anchor Assembly (Type SFT)	EA	3		
80	839582	End Anchor Assembly (Type CA)	EA	1		
81	839584	Alternative In-Line Terminal System	EA	4		
82	839591	Crash Cushion, Sand Filled	EA	1		
83	839699	Concrete Barrier (Type 60P)	LF	160		
84	839701	Concrete Barrier (Type 60)	LF	340		
85	839703	Concrete Barrier (Type 60C)	LF	800		
86	839709	Concrete Barrier (Type 60GE)	LF	4,230		
87	839713	Concrete Barrier (Type 60R)	LF	570		
88	840516	Thermoplastic Pavement Marking (Enhanced Wet Night Visibility)	SQFT	13,900		
89	846001	4" Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility)	LF	180,500		
90	846004	4" Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility) (Broken 17-7)	LF	680		
91	846005	4" Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility) (Broken 34-14)	LF	28,300		
92	846009	8" Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility)	LF	3,520		
93	846011	8" Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility) (Broken 34-14)	LF	128,400		
94	846012	8" Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility) (Broken 12-3)	LF	440		
95	846012A	Contrast Pavement Stripe Black Paint (Broken)	LF	97,300		
96	846012B	3" Contrast Pavement Stripe Black Paint (Solid)	LF	12,400		
97	846020A	12" Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility)	LF	400		
98	850101	Pavement Marker (Non-Reflective)	EA	3,120		
99	850111	Pavement Marker (Retroreflective)	EA	9,870		
100	860090	Maintaining Existing Traffic Management System Elements During Construction	LS	1		
101	860202A	Electronic Toll Systems	LS	1		
102	860401A	Lighting (BAIFA)	LS	1		
103	860202B	Backhaul Communications	LS	1		
104	999990	Mobilization	LS	1		



The Total Contract Price shall be the sum of of the Bid Items above.

TOTAL CONTRACT PRICE:	In Words:	Numbers (\$):



**SUBMITTED BY:**

**Full and Correct Name of Bidder:**

\_\_\_\_\_  
\_\_\_\_\_

**Business Address:**

\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

**California Contractor’s License:**

Number: \_\_\_\_\_

Class: \_\_\_\_\_

Expires: \_\_\_\_\_

**CONTRACTOR INFORMATION**

The names of all persons as principals interested in the foregoing bid are as follows:

**(IMPORTANT NOTICE:** If Bidder or other interested person is a corporation, give legal name of corporation, and names of the President and Secretary thereof; if a partnership, give name of the firm, also names of all individual partners composing firm; if Bidder or other interested person is an individual, give first and last names in full. If a Bidder is a joint venture, supply the above information for each joint venture partner.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



The person signing this Bid Form for the Bidder certifies that he or she is authorized by the Bidder to do so and that the Bidder is bound contractually by that signature.

Signature \_\_\_\_\_

Name \_\_\_\_\_  
(Print)

Title \_\_\_\_\_

Date \_\_\_\_\_



### Insurance Certificate Checklist

### INSURANCE REQUIREMENTS

Minimum Insurance Coverages. The insurance requirements specified in this section must cover your own liability and the liability arising out of work or services performed under this Agreement by any subconsultants, subcontractors, suppliers, temporary workers, independent contractors, leased employees, or any other persons, firms or corporations that you authorize to work under this Agreement (hereinafter referred to as “Agents.”) You must, at your own expense, obtain and maintain in effect at all times during the life of this Agreement the following types of insurance against claims, damages and losses due to injuries to persons or damage to property or other losses that may arise in connection with the performance of work under this Agreement.

You are required to assess the risks associated with work to be performed by Agents under subcontract and to include in every subcontract the requirement that the Agent maintain adequate insurance coverage with appropriate limits and endorsements to cover such risks. To the extent that an Agent does not procure and maintain such insurance coverage, you are responsible for said coverage and assume any and all costs and expenses that may be incurred in securing said coverage or in fulfilling your indemnity obligation as to yourself or any of your Agents in the absence of coverage.

In the event you or your Agents procure excess or umbrella coverage to maintain certain requirements outlined below, these policies must also satisfy all specified endorsements and stipulations, including provisions that your insurance be primary without right of contribution from BAIFA or Caltrans. Prior to beginning work under this contract, you must provide BAIFA with satisfactory evidence of compliance with the insurance requirements of this section.

Yes (✓)	<p><b>Please certify by checking the box below that required coverages will be provided within ten (10) days of BAIFA’s notice to firm that it wishes to contract with the firm.</b></p>
—	<p><u>Workers' Compensation Insurance</u> with Statutory limits, and Employer's Liability Insurance with a limit of not less than \$1,000,000 per accident, \$1,000,000 per employee for disease, and \$1,000,000 policy limit for disease, and any and all other coverage of your employees as may be required by applicable law. Bidder is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and will comply with such provisions before commencing the performance of the work of this contract. Such policy must contain a Waiver of Subrogation in favor of BAIFA and Caltrans. Such Workers Compensation &amp; Employers Liability may be waived, if and only for as long as you are a sole proprietor or a corporation with stock 100% owned by officers with no employees. Should any bridge work require coverage for the United States Longshore Harbor Workers Act, you agree to furnish proof of insurance, if required.</p>



—	<p><u>Commercial General Liability Insurance</u> for Bodily Injury and Property Damage liability, covering operations of you and your officers, agents, and employees and with limits of liability which must not be less than \$1,000,000 combined single limit per occurrence with a general aggregate liability of not less than \$2,000,000, and Personal and Advertising injury liability with a limit of not less than \$1,000,000. Such policy must contain a Waiver of Subrogation in favor of BAIFA and Caltrans. BAIFA, Caltrans, and their commissioners, directors, officers, representatives, agents and employees are to be named as additional insureds. Such insurance must be primary and contain a Separation of Insureds clause as respects any claims, losses or liability arising directly or indirectly from Bidder's operations.</p> <p>BAIFA, Caltrans, and their commissioners, directors, officers, representatives, agents and employees are to be named as additional insureds. Such insurance must be primary and contain a Separation of Insureds Clause as respects any claims, losses or liability arising directly or indirectly from your operations.</p>
—	<p><u>Business Automobile Liability Insurance</u> for all automobiles owned (if any), used or maintained by you and your officers, agents and employees, including but not limited to owned (if any), leased (if any), non-owned and hired automobiles. Limits of liability which must not be less than \$1,000,000 combined single limit per accident for Bodily Injury and Property Damage.</p>
—	<p><u>Umbrella insurance</u> in the amount of \$9,000,000 providing excess limits over Employers Liability, Automobile Liability and Commercial General Liability insurance. Such umbrella coverage must be following form to underlying coverage including all endorsements and additional insured requirements.</p>
—	<p><u>Property Insurance</u> covering your own Business Personal Property and Equipment to be used in the performance of this agreement, materials or property to be purchased and/or installed on behalf of BAIFA(if any), and builders risk for property in the course of construction (if applicable). You are responsible for all loss or damage, howsoever caused, to the work and materials, until final acceptance by BAIFA. In addition, the insurance should include "in transit" coverage to the final agreed upon destination of delivery, and including loading and unloading operations and such coverage must be in force until the work and materials are accepted by BAIFA.</p> <p>Coverage must be written on a "Special Form" policy that includes theft, but excludes earthquake, with limits at least equal to the replacement cost of the property. Such policy must contain a Waiver of Subrogation in favor of BAIFA and Caltrans.</p>
<p><u>General Terms and Conditions</u>          All policies will be issued by insurers acceptable to BAIFA, generally with a Best's Rating of A-VII or better.</p>	



Your obligation hereunder may be satisfied in whole or in part by adequately funded self-insurance, upon evidence of financial capacity satisfactory to BAIFA.

#### Deductible

You are responsible for payment of any deductible or retention on your policies without right of contribution from BAIFA or Caltrans. Deductible and retention provisions must not contain any restrictions as to how or by whom the deductible or retention is paid. Any deductible or retention provision limiting payment to the Named Insured is unacceptable.

In the event that BAIFA or Caltrans seeks coverage as an additional insured under your insurance policy that contains a deductible or self-insured retention, you must satisfy such deductible or self-insured retention to the extent of loss covered by such policy, for any lawsuit arising from or connected with any alleged act by you, subconsultant, subcontractor, or any of your employees, officers or directors, even if you or subconsultant is not a named defendant in the lawsuit.

#### Claims Made Coverage

If any insurance specified above is provided on a claim-made (rather than an “occurrence”) basis, then in addition to coverage requirements above, such policy must:

1. Ensure that the Retroactive Date is shown on the policy, and such date must be before the date of the Contract or the beginning of any work under the Contract;
2. Maintain and provide evidence of similar insurance for at least three (3) years following project completion, including the requirement of adding all additional insureds; and
3. If insurance is cancelled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the Contract effective date, you must purchase “extended reporting” coverage for a minimum of three (3) years after completion of the work.

#### Failure to Maintain Insurance

All insurance specified above must remain in force until all work or services to be performed are satisfactorily completed, all of your personnel, subcontractors, and equipment have been removed from BAIFA’s property, and the work or services have been formally accepted. You must notify BAIFA if any of the above required coverages are non-renewed or cancelled. The failure to procure or maintain required insurance and/or an adequately funded self-insurance program will constitute a material breach of the Contract.

Prior to commencement of any work hereunder, You must deliver to BAIFA Certificates of Insurance verifying the aforementioned coverages. Such certificates must make reference to all provisions and endorsements referred to above and must be signed on behalf of the insurer by an authorized representative thereof.



The foregoing requirements as to the types and limits of insurance coverage to be maintained by you are not intended to and must not in any manner limit or qualify the liabilities and obligations otherwise assumed by you pursuant hereto, including, but not limited to, liability assumed pursuant to the Indemnification section of the Contract.

**By signing below you acknowledge and agree to provide the required certificate of insurance providing verification of the minimum insurance requirements listed above within ten (10) days of BAIFA’s notice to firm that it wishes to contract with the firm.**

Representative Name and Title	
Name of Authorizing Official	
Authorized Signature	
Date	

**NOTE: If you were unable to check “Yes” for any of the required minimum insurance coverages listed above, a request for exception to the appropriate insurance requirement(s) must be brought to BAIFA’s attention no later than closing date/time for receipt of requests for modifications/exceptions. If such modifications/exceptions are not brought to BAIFA’s attention consistent with the provisions of this IFB, compliance with the insurance requirements will be assumed.**



## **SC-2 Insurance**

### **2.1 Minimum Coverage**

The insurance requirements specified in this section must cover your own liability and the liability arising out of work or services performed under this Agreement by any subconsultants, subcontractors, suppliers, temporary workers, independent contractors, leased employees, or any other persons, firms or corporations that you authorize to work under this Agreement (hereinafter referred to as "Agents.") You must, at your own expense, obtain and maintain in effect at all times during the life of this Agreement the following types of insurance against claims, damages and losses due to injuries to persons or damage to property or other losses that may arise in connection with the performance of work under this Agreement.

You are also required to assess the risks associated with work to be performed by Agents under subcontract and to include in every subcontract the requirement that the Agent maintain adequate insurance coverage with appropriate limits and endorsements to cover such risks. To the extent that an Agent does not procure and maintain such insurance coverage, you are responsible for said coverage and assume any and all costs and expenses that may be incurred in securing said coverage or in fulfilling your indemnity obligation as to yourself or any of your Agents in the absence of coverage.

In the event you or your Agents procure excess or umbrella coverage to maintain certain requirements outlined below, these policies must also satisfy all specified endorsements and stipulations, including provisions that your insurance be primary without right of contribution from BAIFA or Caltrans. Prior to beginning work under this contract, you must provide BAIFA with satisfactory evidence of compliance with the insurance requirements of this section.

- 2.1.1 Workers' Compensation Insurance with Statutory limits, and Employer's Liability Insurance with a limit of not less than \$1,000,000 per accident, \$1,000,000 per employee for disease, and \$1,000,000 policy limit for disease, and any and all other coverage of your employees as may be required by applicable law. (Such policy must contain a Waiver of Subrogation in favor of BAIFA and Caltrans. Such Workers Compensation & Employers Liability may be waived, if and only for as long as you are a sole proprietor or a corporation with stock 100% owned by officers with no employees. Should any bridge work require coverage for the United States Longshore Harbor Workers Act, you agree to furnish proof of insurance, if required.
- 2.1.2 Commercial General Liability Insurance for Bodily Injury and Property Damage liability, covering operations of you and your officers, agents, and employees and with limits of liability which must not be less than \$1,000,000 combined single limit per occurrence with a general aggregate liability of not less than \$2,000,000, and Personal and Advertising injury liability with a limit of not less than \$1,000,000. Such policy must contain a Waiver of Subrogation in favor of BAIFA and Caltrans. BAIFA, Caltrans, and their commissioners, directors, officers,



representatives, agents and employees are to be named as additional insureds. Such insurance must be primary and contain a Separation of Insureds clause as respects any claims, losses or liability arising directly or indirectly from your operations.

- 2.1.3 Business Automobile Liability Insurance for all automobiles owned (if any), used or maintained by you and your officers, agents and employees, including but not limited to owned (if any), leased (if any), non-owned and hired automobiles. Limits of liability which must not be less than \$1,000,000 combined single limit per accident for Bodily Injury and Property Damage.
- 2.1.4 Umbrella insurance in the amount of \$9,000,000 providing excess limits over Employers Liability, Automobile Liability and Commercial General Liability insurance. Such umbrella coverage must be following form to underlying coverage including all endorsements and additional insured requirements.
- 2.1.5 Property Insurance covering your own Business Personal Property and Equipment to be used in the performance of this agreement, materials or property to be purchased and/or installed on behalf of Error! Reference source not found. (if any), and builders risk for property in the course of construction (if applicable). You are responsible for all loss or damage, howsoever caused, to the work and materials, until final acceptance by BAIFA. In addition, the insurance should include “in transit” coverage to the final agreed upon destination of delivery, and including loading and unloading operations, and such coverage must be in force until the work and materials are accepted by Error! Reference source not found..

Coverage must be written on a “Special Form” policy that includes theft, but excludes earthquake, with limits at least equal to the replacement cost of the property. Such policy must contain a Waiver of Subrogation in favor of BAIFA and Caltrans.

## **2.2 Deductibles**

You are responsible for payment of any deductible or retention on your policies without right of contribution from BAIFA or Caltrans. Deductible and retention provisions must not contain any restrictions as to how or by whom the deductible or retention is paid. Any deductible or retention provision limiting payment to the Named Insured is unacceptable.

In the event that BAIFA or Caltrans seeks coverage as an additional insured under any Bidder insurance policy that contains a deductible or self-insured retention, you must satisfy such deductible or self-insured retention to the extent of loss covered by such policy, for any lawsuit arising from or connected with any alleged act by you, subconsultant, subcontractor, or any of your employees, officers or directors, even if you or subconsultant is not a named defendant in the lawsuit.



## **2.3 Failure to Maintain Insurance**

All insurance specified above must remain in force until all work or services to be performed are satisfactorily completed, all of your personnel, subcontractors, and equipment have been removed from BAIFA's property, and the work or services have been formally accepted. You must notify BAIFA if any of the above required coverages are non-renewed or cancelled. The failure to procure or maintain required insurance and/or an adequately funded self-insurance program will constitute a material breach of this Agreement.

## **2.4 Self-Insurance**

Your obligation hereunder may be satisfied in whole or in part by adequately funded self-insurance, upon evidence of financial capacity satisfactory to BAIFA.

## **2.5 Claims Made Coverage**

If any insurance specified above be provided on a claim-made (rather than an "occurrence") basis, then in addition to coverage requirements above, such policy must:

- 2.5.1 Ensure that the Retroactive Date is shown on the policy, and such date must be before the date of the Contract or the beginning of any work under the Contract;
- 2.5.2 Maintain and provide evidence of similar insurance for at least three (3) years following project completion, including the requirement of adding all additional insureds; and
- 2.5.3 If insurance is cancelled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the Contract effective date, you must purchase "extended reporting" coverage for a minimum of three (3) years after completion of the work.

## **2.6 Certificates of Insurance**

Prior to commencement of any work hereunder, you must deliver to BAIFA Certificates of Insurance verifying the aforementioned coverages. Such certificates must make reference to all provisions and endorsements referred to above and must be signed on behalf of the insurer by an authorized representative thereof.

## **2.7 Disclaimer**

The foregoing requirements as to the types and limits of insurance coverage to be maintained by you are not intended to and must not in any manner limit or qualify the liabilities and obligations otherwise assumed by you pursuant hereto, including, but not limited to, liability assumed pursuant to Section 7-1.05, Indemnification, of the Standard Specifications.



## **2.8 Acceptable Insurers**

All policies will be issued by insurers acceptable to BAIFA, generally with a Best's Rating of A-VII or better.



## **APPENDIX A**

### **Contract Drawings / Plans**

#### **Replacement Sheets:**

Project Plan Sheets *107, 112-115, 177, 182, 183, 207-209, 273, 274, 424, 428, 460, 549, 566A, 566B, 566C, 566D, 566E, 566F, 566G, 566H, 566I, 566J, 566K, 566L, 566M, 566N, 566O, , 566T, and 566U.*







ABBREVIATIONS

w/                WITH

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LAST REVISION	
4-08-15	

2

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# DRAINAGE QUANTITIES

## DQ-1



STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

CALCULATED-DESIGNED BY

CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR

RAMSEY HISSEN

MARIUS GOGOSANU

DAVID WILLIAMS

REVISD BY

DATE REVISED

Dist

4

COUNTY

Alameda

ROUTE

680

POST MILES TOTAL PROJECT

R20.1/R21.9, R0.0/14.0

SHEET No.

113

TOTAL SHEETS

617

REGISTERED CIVIL ENGINEER

4-08-15

DATE

4-21-15

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

REGISTERED PROFESSIONAL ENGINEER

RAMSEY J. HISSEN

No. C39608

Exp. 12-31-15

CIVIL

STATE OF CALIFORNIA

DRAINAGE QUANTITIES

DRAINAGE PLAN SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	MINOR CONCRETE (MINOR STRUCTURE)	MINOR CONCRETE (MISC CONSTRUCTION)	CULVERT SLURRY-CEMENT BACKFILL	STRUCTURE BACKFILL	MINOR CONCRETE (BACKFILL)	CLASS 3 PM	REMOVE CONCRETE	Misc IRON AND STEEL	18" APC	18" SCSP	FRAME & GRATE/ COVER (N)	HEIGHT OF INLET "H" (N)	MAXIMUM COVER (N)	PIPE JOINT CLASSIFICATION (N)	REMOVE EDGE DRAIN	REMOVE UNDERDRAIN	REMOVE PIPE	REMOVE INLET	42" APC	30" APC	8" ALTERNATIVE PIPE UNDER DRAIN	3" PLASTIC PIPE (EDGE DRAIN)	DESCRIPTION	LOCATION	DRAINAGE PLAN SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	
D-5	5	a	4.62	0.66						326			24-12	10.1											Mod G2 DI w/ SGD	1.14' R+ "M" 795+00.00	D-5	5	a	
		b			177	183	45								6.2	S					93				42" APC	8.20' R+ "M" 794+07.00 TO 1.14 R+ "M" 795+00.00			b	
		c	4.22								435		COVER	10.1											G2 MH	8.20' R+ "M" 794+07.00			c	
		d			169	176	47								6.4	S					97				42" APC	1.0'± R+ "M" 793+10± TO 8.20' R+ "M" 794+07.00			d	
		e																190							42" APC	1.0'± R+ "M" 793+10± TO 1.14' R+ "M" 795+00.00			e	
D-6	6	a	2.14	0.66						326			24-12	4.7												Mod G2 DI w/ SGD	0.19' R+ "M" 964+00.00	D-6	6	a
		b			91	33	42					100				3.0	S								18" APC	0.19' R+ "M" 964+00.00 TO 5.60' R+ "M" 965+00.00	b			
		c	1.57								435		COVER	4.0												G2 MH	5.60' R+ "M" 965+00.00			c
		d			61	22	28					67				2.3	S								18" APC	5.60' R+ "M" 965+00.00 TO 0.50'± R+ "M" 965+67±	d			
		e																167							18" APC	0.19'± R+ "M" 964+00.00 TO 0.50'± R+ "M" 965+67±	e			
		f		1.15						1.15																	SGD			REMOVE & REPLACE SGD
D-7	7	a					15.4	4.8								S	94						94	3" EDGE DRAIN	0.0'± R+ "M" 1103+33± TO 1.0'± R+ "M" 1104+27±	D-7	7	a		
		b						20.9									S		94				94	8" UD	0.0'± R+ "M" 1103+33± TO 1.0'± R+ "M" 1104+27±			b		
D-8	8	a	2.71	0.66						326			24-12	6.9												Mod G2 DI w/ SGD	2.24' L+ "M" 113+58.00	D-8	8	a
		b					7.1					59				S										18" SCSP	2.24' L+ "M" 1113+58.00 TO 4.72' L+ "M" 1114+20.00			b
		c			50	69						62				5.2	S									18" APC	2.24' L+ "M" 1113+58.00 TO 4.72' L+ "M" 1114+20.00			c
		d	2.36	0.66							326			24-12	7.1											G2 DI w/ SGD	4.27' L+ "M" 1114+20.00			d
		e			100	138	46					124				6.2	S										18" APC			2.60' L+ "M" 1114+17.00 TO 1.6'± L+ "M" 1115+44±
SHEET TOTAL			17.62	3.79	563	621	230.5	25.7	1.15	2,174	353	59	N/A	N/A	N/A	N/A	94	94	357	0	190	0	94	94			SHEET TOTAL			

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2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

DRAINAGE QUANTITIES


DQ-2







STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



CONSULTANT FUNCTIONAL SUPERVISOR

RAMSEY HISSEN

CALCULATED-DESIGNED BY

CHECKED BY


MARIUS GOGOSANU


DAVID WILLIAMS

REVISED BY

DATE REVISED

2

DRAINAGE PLAN SHEET No. 

DRAINAGE SYSTEM No. 

MINOR CONCRETE (MINOR STRUCTURE)

MINOR CONCRETE (Misc CONSTRUCTION)

CULVERT SLURRY-CEMENT BACKFILL

STRUCTURE BACKFILL

MINOR CONCRETE (BACKFILL)

CLASS 3 PM

REMOVE CONCRETE

Misc IRON AND STEEL

18" APC

18" SCSP

FRAME & GRATE/ COVER (N)

HEIGHT OF INLET "H" (N)

MAXIMUM COVER (N)

PIPE JOINT CLASSIFICATION (N)

REMOVE EDGE DRAIN

REMOVE UNDERDRAIN

REMOVE PIPE

REMOVE INLET

42" APC

30" APC


8" ALTERNATIVE PIPE UNDER DRAIN


3" PLASTIC PIPE (EDGE DRAIN)

DESCRIPTION

LOCATION

DRAINAGE PLAN SHEET No.

DRAINAGE SYSTEM No. 

DRAINAGE UNIT 

D-11	11	a					20.0								S		90	100				90		8" UD	1.8'± R+ "M" 1210+58± TO 1.9'± R+ "M" 1211+48±	D-11	11	a
		b				14.8	4.6								90							90		3" EDGE DRAIN	1.8'± R+ "M" 1210+58± TO 1.9'± R+ "M" 1211+48±			b
D-12	12	a				6.7	2.1							S	41							41		3" EDGE DRAIN	0.1'± L+ "M" 1230+30± TO 0.25'± R+ "M" 1230+70±	D-12	12	a
SHEET TOTAL			0	0	0	0	21.5	26.7	0	0	0	0	N/A	N/A	N/A	N/A	131	0	100	0	0	0	90	90	SHEET TOTAL			
GRAND TOTAL			38.16	8.56	1,402	1,735	711.2	190.3	4.60	4,457	727	218	N/A	N/A	N/A	N/A	1,156	778	1,087	2	362	172	554	1,085	GRAND TOTAL			

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

DRAINAGE QUANTITIES

DQ-4

Dist

COUNTY

ROUTE

POST MILES TOTAL PROJECT

SHEET No.

TOTAL SHEETS

4

Alameda

680

R20.1/R21.9, R0.0/14.0

115

617

REGISTERED CIVIL ENGINEER

4-08-15

DATE

4-21-15

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

RAMSEY J. HISSEN

No. C39608

Exp. 12-31-15

CIVIL

STATE OF CALIFORNIA

BORDER LAST REVISED 7/2/2010

USERNAME => ernie\_garnica  
DGN FILE => 04140004891d004.add2.dgn

RELATIVE BORDER SCALE  
IS IN INCHES

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1

2

3

UNIT 0750

PROJECT NUMBER & PHASE

04140004891

DATE PLOTTED => 6/2/2015  
4-08-15

TIME PLOTTED => 4:52:51 PM



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR

RAMSEY HISSEN

CALCULATED-DESIGNED BY

CHECKED BY

REVISOR

ROBERT PADERNA

DATE

REVISED

ELIE ABI-JAOUDE

LEGEND:

- 1 ONE POST CONSTRUCTION AREA SIGN
- 2 TWO POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN NUMBER

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, SEE TRAFFIC HANDLING PLANS.
3. ALL EXISTING SIGNS IN CONFLICT WITH TRAFFIC HANDLING PLANS SHALL BE COVERED OR REMOVED UNDER THE DIRECTION OF THE ENGINEER.
4. SIGN POST LENGTHS ARE APPROXIMATE. EXACT SIZE AND LENGTH WILL BE DETERMINED BY THE ENGINEER.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
A	W20-1		60" x 60"	ROAD WORK AHEAD	2 - 4" x 6"	2
B	G20-2		48" x 24"	END ROAD WORK	1 - 4" x 6"	57
C	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 4" x 6"	65
D		C40 (CA)	144" x 60"	TRAFFIC FINES DOUBLE IN CONSTRUCTION ZONE	2 - 4" x 6"	2



Dist

COUNTY

ROUTE

POST MILES TOTAL PROJECT

SHEET No.

TOTAL SHEETS

4

Alameda

680

R20.1/R21.9, R0.0/14.0

177

617

REGISTERED CIVIL ENGINEER

4-08-15

DATE

4-21-15

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

URS CORPORATION

100 W. SAN FERNANDO St

SUITE 200

SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY

101 EIGHTH St, 3rd Floor

OAKLAND, CA 94607

REGISTERED PROFESSIONAL ENGINEER

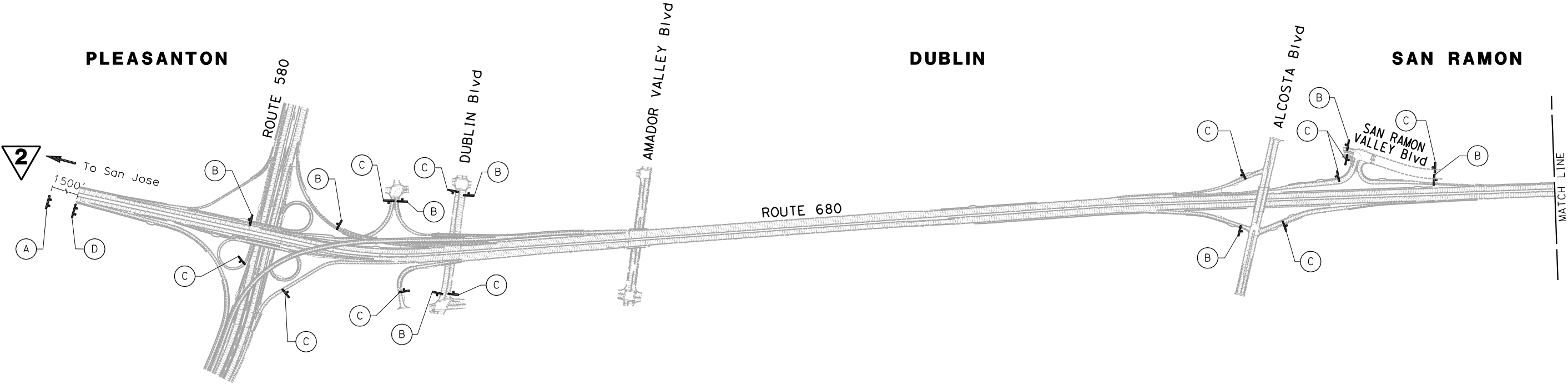
RAMSEY J. HISSEN

No. C39608

Exp. 12-31-15

CIVIL

STATE OF CALIFORNIA



REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

CONSTRUCTION AREA SIGNS

NO SCALE

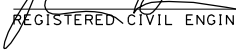
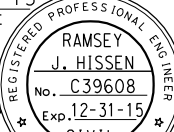
CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	ROBERT PADERNA	REVISED BY	.
<b>etb Caltrans®</b>	RAMSEY HISSEN	CHECKED BY	ELIE ABI-JAOUDE	DATE REVISED	.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	182	617
 REGISTERED CIVIL ENGINEER			4-08-15 DATE		
4-21-15 PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH ST, 3rd Floor OAKLAND, CA 94607		

FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEET CS-1

**2** REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

## CONSTRUCTION AREA SIGNS

NO SCALE

**CS - 6**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY



**Overall Dimensions:**

- Overall Width: 11'-0"
- Overall Height: 7'-0"
- Top Section Height: 1'-9"
- Bottom Section Height: 1'-9"
- Left Margin: 2"
- Right Margin: 3"

**Text and Graphics on Sign:**

- Top Left:** Caltrans logo (Pantone #299 Blue), "Your Toll Dollars AT WORK" (Pantone #326 Green).
- Top Right:** Diamond-shaped warning sign: "SLOW FOR THE CONE ZONE" with cone graphics.
- Center:** "HIGHWAY IMPROVEMENT", "YEAR OF COMPLETION: 2016", "BATA EXPRESS LANE FUNDS".
- Bottom Left:** Metropolitan Transportation Commission (MT) logo.
- Bottom Center:** Bay Area Toll Authority logo.
- Bottom Right:** Bay Area Express Lanes logo.

**Details:**

- DETAIL A:** Caltrans logo and "Your Toll Dollars AT WORK" text. Dimensions include 10" for the logo height and 1'-9" for the text height.
- DETAIL B:** "Your Toll Dollars AT WORK" text. Dimensions include 6" E (italic) for the text height and 1'-9" for the overall section height.
- DETAIL C:** "SLOW FOR THE CONE ZONE" diamond sign. Dimensions include 2'-0" for the diamond height and 11 1/2" for the width.

**Sign Identification:** SIGN E ON CS-1 AND CS-6

NO SCALE

~~CS-7~~



FOR ACCURATE RIGHT OF WAY DATA, CONTACT BAIFA



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Ala, CC	680	R20.1/R21.9, R0.0/14.0	207	617

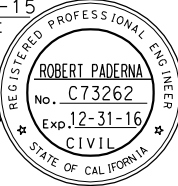
  

*Robert Paderna*  
REGISTERED CIVIL ENGINEER

4-08-15  
DATE

4-21-15  
PLANS APPROVAL DATE



THE STATE OF CALIFORNIA OR ITS OFFICERS  
OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
THE ACCURACY OR COMPLETENESS OF SCANNED  
COPIES OF THIS PLAN SHEET.

<p>URS CORPORATION  100 W. SAN FERNANDO ST  SUITE 200  SAN JOSE, CA 95113-2254</p>	<p>BAY AREA INFRASTRUCTURE  FINANCING AUTHORITY  101 EIGHTH ST, 3rd Floor  OAKLAND, CA 94607</p>
--	--

**S A N R A M O N**

SCALE: 1" = 50'

**TH-24**

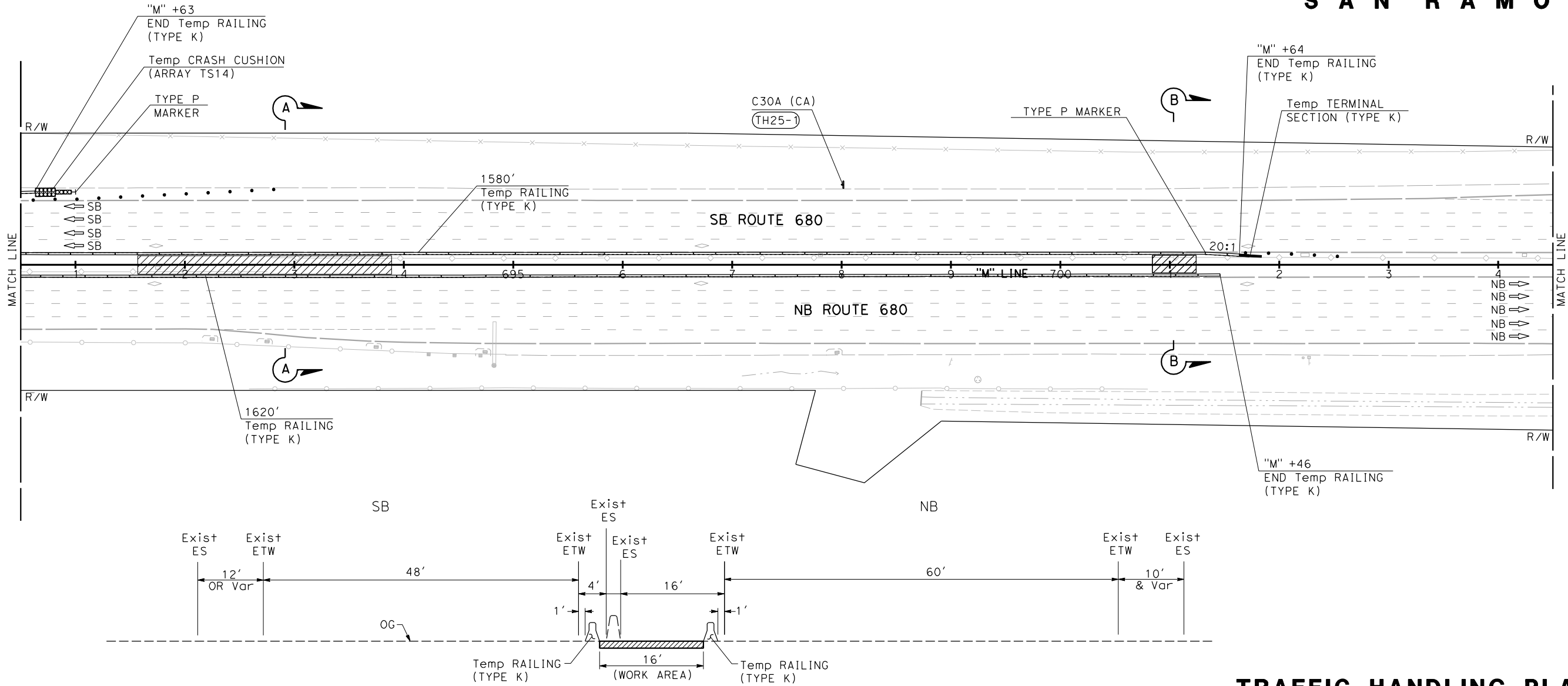
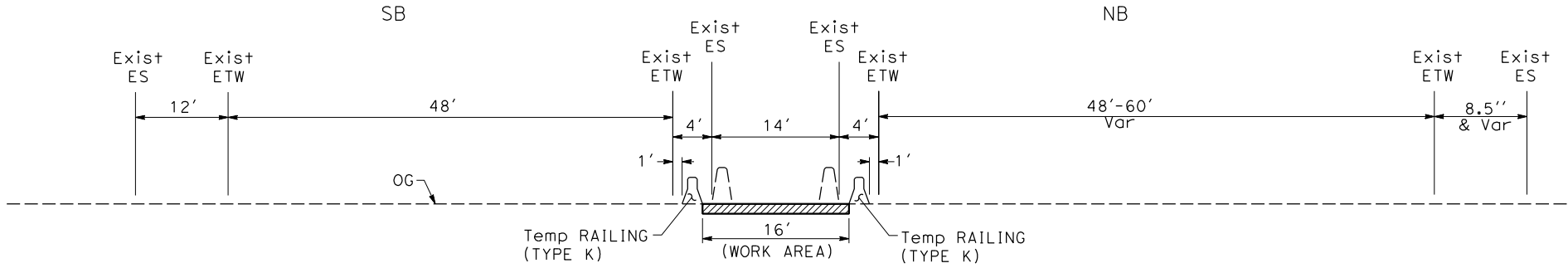
**REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015**

APPROVED FOR TRAFFIC HANDLING WORK ONLY



x						
x						
x						
x						
x						

**NOTE:**  
FOR ACCURATE RIGHT OF WAY DATA, CONTACT BAIFA



S A N R A M O N

**TRAFFIC HANDLING PLAN**  
**STAGE 2**  
SCALE: 1" = 50'

**TH-25**

FOR NOTES AND LEGEND, SEE  
SHEET TH-1

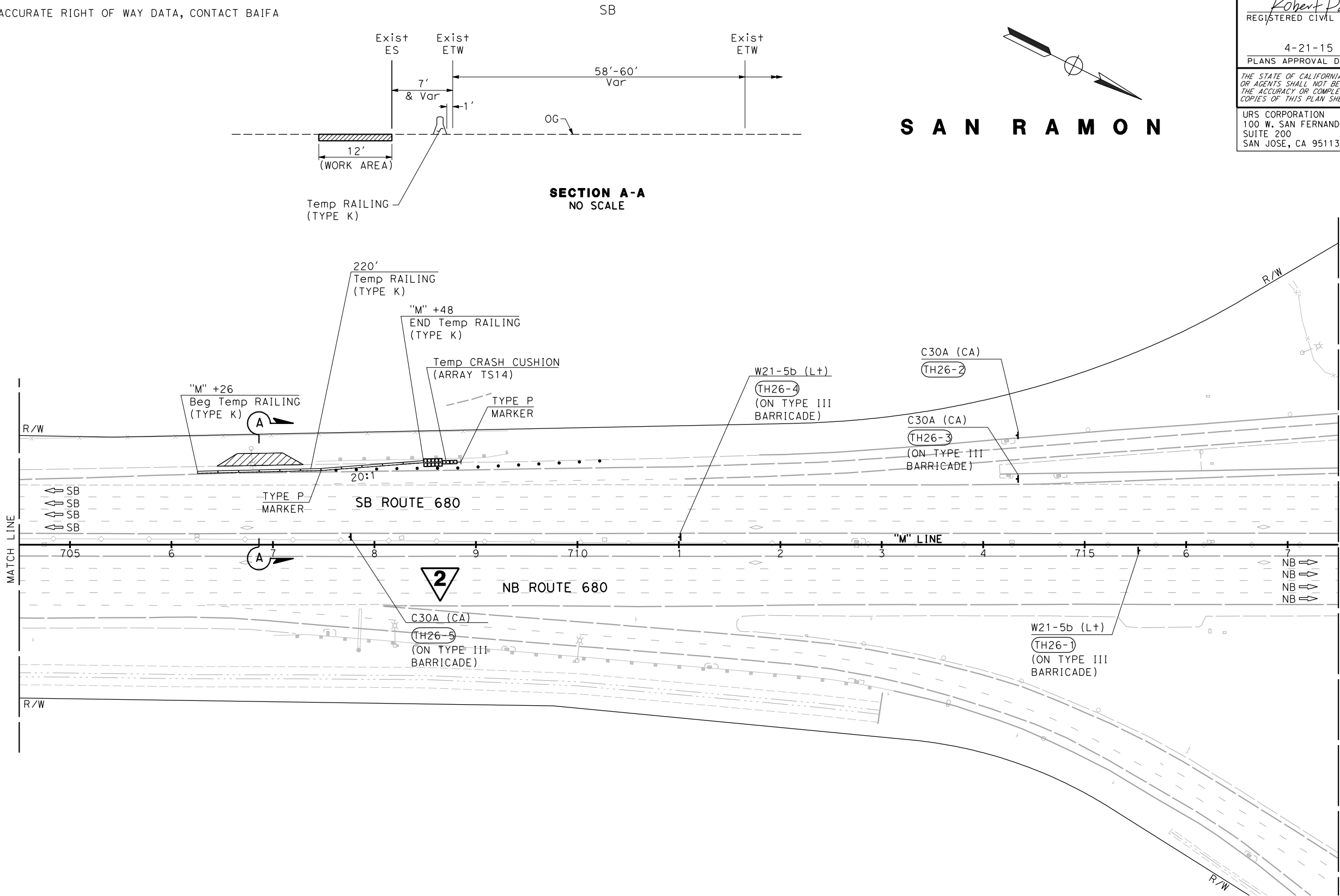


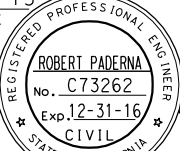
**REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015**  
APPROVED FOR TRAFFIC HANDLING WORK ONLY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	REVISOR	REVISION	DATE	BY	REASON
ETG	CONSULTANT FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	CALCULATED BY	DESIGNED BY
ETG	CONSULTANT FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	CALCULATED BY	DESIGNED BY
ETG	CONSULTANT FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	CALCULATED BY	DESIGNED BY
ETG	CONSULTANT FUNCTIONAL SUPERVISOR	DESIGNED BY	CHECKED BY	CALCULATED BY	DESIGNED BY

**NOTE:**  
FOR ACCURATE RIGHT OF WAY DATA, CONTACT BAIFA



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Ala,CC	680	R20.1/R21.9, R0.0/14.0	209	617
<u>Robert Paderna</u> REGISTERED CIVIL ENGINEER			4-08-15 DATE		
<u>4-21-15</u> PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
URS CORPORATION 100 W. SAN FERNANDO St SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH St, 3rd Floor OAKLAND, CA 94607		

FOR NOTES AND LEGEND, SEE  
SHEET TH-1



**REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**


**STAGE 2**

SCALE: 1" = 50'

**TH-26**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



CONSULTANT FUNCTIONAL SUPERVISOR

RAMSEY HISSEN

CALCULATED-DESIGNED BY

CHECKED BY

ROBERT PADERNA

DAVID WILLIAMS

REVISED BY

DATE

REVISED

DATE

TEMPORARY RAILING

STATION	Temp RAILING (TYPE K)
	LF
"M" 475+59 R+ TO "M" 484+72 R+	920
"M" 482+90 L+ TO "M" 485+55 L+	280
"M" 497+19 R+ TO "M" 500+44 R+	320
"M" 498+53 L+ TO "M" 501+78 L+	320
"M" 512+53 R+ TO "M" 515+57 R+	300
"M" 513+95 L+ TO "M" 516+99 L+	300
"M" 538+28 R+ TO "M" 549+26 R+	1100
"M" 539+59 L+ TO "M" 550+78 L+	1120
"M" 591+23 R+ TO "M" 594+48 R+	320
"M" 592+74 L+ TO "M" 595+80 L+	300
"M" 602+62 R+ TO "M" 606+28 R+	360
"M" 604+34 L+ TO "M" 607+78 L+	340
"M" 623+62 R+ TO "M" 626+66 R+	300
"M" 625+10 L+ TO "M" 627+94 L+	280
"M" 657+03 R+ TO "M" 659+87 R+	280
"M" 657+95 L+ TO "M" 661+20 L+	320
"M" 657+81 L+ TO "M" 660+44 L+	260
"M" 673+63 R+ TO "M" 675+25 R+	160
"M" 674+85 L+ TO "M" 677+48 L+	260
"M" 687+99 L+ TO "M" 690+63 L+	260
"M" 685+20 R+ TO "M" 701+46 R+	1620
"M" 685+66 L+ TO "M" 701+64 L+	1580
"M" 706+26 L+ TO "M" 708+48 L+	220
"M" 733+08 R+ TO "M" 736+94 R+	380
"M" 735+20 L+ TO "M" 738+45 L+	320
"M" 733+66 L+ TO "M" 736+30 L+	260
"M" 757+39 R+ TO "M" 760+42 R+	300
"M" 758+58 L+ TO "M" 761+83 L+	320
"M" 760+99 L+ TO "M" 763+83 L+	280
"M" 784+30 R+ TO "M" 795+26 R+	1100
"M" 785+62 L+ TO "M" 796+80 L+	1100
"M" 786+47 R+ TO "M" 789+72 R+	320
"M" 787+31 R+ TO "M" 789+95 R+	260
"M" 809+41 R+ TO "M" 812+86 R+	340
"M" 811+18 L+ TO "M" 814+23 L+	300
"M" 847+66 R+ TO "M" 852+34 R+	460
"M" 849+29 L+ TO "M" 853+75 L+	440
"M" 898+61 R+ TO "M" 901+25 R+	260
"M" 899+00 L+ TO "M" 901+44 L+	240
"M" 901+70 L+ TO "M" 905+36 L+	360
"M" 944+10 R+ TO "M" 951+82 R+	780
"M" 945+42 L+ TO "M" 953+15 L+	780
"M" 962+88 R+ TO "M" 966+73 R+	380
"M" 963+94 L+ TO "M" 968+02 L+	400
"M" 964+50 L+ TO "M" 965+76 L+	120
"M" 966+01 L+ TO "M" 970+36 L+	420
"M" 996+29 R+ TO "M" 999+33 R+	300
"M" 997+61 L+ TO "M" 1000+65 L+	300
"M" 1010+53 R+ TO "M" 1014+19 R+	360
"M" 1012+40 L+ TO "M" 1015+24 L+	280
"M" 1017+15 R+ TO "M" 1019+18 R+	200
"M" 1053+15 R+ TO "M" 1055+38 R+	220
"M" 1057+34 R+ TO "M" 1060+38 R+	300
"M" 1058+62 L+ TO "M" 1061+66 L+	300
"M" 1101+98 R+ TO "M" 1104+42 R+	240
"M" 1102+73 R+ TO "M" 1105+04 R+	240
"M" 1103+26 L+ TO "M" 1117+66 L+	1420
"M" 1111+98 R+ TO "M" 1115+64 R+	360
"M" 1132+14 R+ TO "M" 1136+40 R+	420
"M" 1134+88 L+ TO "M" 1137+92 L+	300
"M" 1158+97 R+ TO "M" 1162+42 R+	340
"M" 1160+46 L+ TO "M" 1163+71 L+	360
"M" 1170+10 R+ TO "M" 1175+62 R+	540
"M" 1171+56 L+ TO "M" 1178+46 L+	680
"M" 1187+26 R+ TO "M" 1189+90 R+	260
"M" 1187+97 L+ TO "M" 1190+00 L+	200

TEMPORARY RAILING (CONT)

STATION	Temp RAILING (TYPE K)
	LF
"M" 1209+08 L+ TO "M" 1211+71 L+	260
"M" 1210+29 L+ TO "M" 1213+14 L+	280
"M" 1211+47 L+ TO "M" 1213+73 L+	220
"M" 1228+05 R+ TO "M" 1231+36 R+	340
"M" 1229+62 L+ TO "M" 1243+63 L+	1500
"M" 1239+32 R+ TO "M" 1242+16 R+	280
"M" 1269+88 R+ TO "M" 1272+72 R+	280
"M" 1272+02 L+ TO "M" 1274+06 L+	200
"M" 1285+51 R+ TO "M" 1288+76 R+	320
"M" 1287+14 L+ TO "M" 1291+20 L+	400
"M" 1297+50 R+ TO "M" 1302+58 R+	500
"M" 1300+69 L+ TO "M" 1305+97 L+	520
"M" 1305+68 L+ TO "M" 1307+92 L+	220
TOTAL	34,380

TEMPORARY TERMINAL SECTION

SHEET No.	STATION	TEMPORARY TERMINAL SECTION (TYPE K)
		EA
TH-1	"M" 1228+05 R+	1
TH-2	"M" 1239+32 R+	1
	"M" 1243+63 L+	1
TH-4	"M" 1269+88 R+	1
	"M" 1274+06 L+	1
TH-5	"M" 1285+51 R+	1
TH-6	"M" 1291+20 L+	1
	"M" 1297+50 R+	1
TH-7	"M" 1305+97 L+	1
TH-9	"M" 475+59 R+	1
TH-10	"M" 485+55 L+	1
TH-11	"M" 497+19 R+	1
	"M" 501+78 L+	1
TH-12	"M" 512+53 R+	1
	"M" 516+99 L+	1
TH-14	"M" 538+28 R+	1
TH-15	"M" 550+78 L+	1
TH-17	"M" 591+23 R+	1
TH-18	"M" 595+80 L+	1
	"M" 602+62 R+	1
TH-19	"M" 607+78 L+	1
TH-20	"M" 623+62 R+	1
	"M" 627+94 L+	1
TH-22	"M" 657+03 R+	1
	"M" 661+20 L+	1
TH-23	"M" 673+63 R+	1
TH-24	"M" 677+48 R+	1
	"M" 685+20 R+	1
TH-25	"M" 701+64 L+	1
TH-28	"M" 733+08 R+	1
	"M" 738+45 L+	1
TH-29	"M" 757+39 R+	1
TH-30	"M" 761+83 L+	1
TH-31	"M" 784+30 R+	1
TH-32	"M" 796+80 L+	1
TH-33	"M" 809+41 R+	1
TH-34	"M" 814+23 L+	1
TH-36	"M" 847+66 R+	1
	"M" 853+75 L+	1
TH-40	"M" 898+61 R+	1
	"M" 901+44 R+	1
TH-43	"M" 944+10 R+	1
TH-44	"M" 953+15 L+	1
TH-45	"M" 962+88 R+	1
	"M" 968+02 L+	1
TH-47	"M" 996+29 R+	1
	"M" 1000+65 L+	1
TH-48	"M" 1010+53 R+	1
	"M" 1015+24 L+	1
TH-51	"M" 1057+34 R+	1
TH-52	"M" 1061+66 L+	1
TH-55	"M" 1101+98 R+	1
TH-56	"M" 1111+98 R+	1
	"M" 1117+66 L+	1
TH-57	"M" 1132+14 R+	1
TH-58	"M" 1137+92 L+	1
TH-59	"M" 1158+97 R+	1
	"M" 1163+71 L+	1
TH-60	"M" 1170+10 R+	1
	"M" 1178+46 L+	1
TH-61	"M" 1187+26 R+	1
	"M" 1190+00 L+	1
TH-63	"M" 1209+08 R+	1
	"M" 1213+14 L+	1
TOTAL		64

2

2

TEMPORARY CRASH CUSHION MODULE

SHEET No.	STATION	ARRAY	EA
TH-7	"M" 1307+92 L+	TS14	14
TH-22	"M" 660+44 L+	TS14	14
TH-25	"M" 690+63 L+	TS14	14
TH-26	"M" 708+48 L+	TS14	14
TH-28	"M" 736+30 L+	TS14	14
TH-30	"M" 763+83 L+	TS14	14
TH-31	"M" 786+47 R+	TS14	14
TH-40	"M" 905+36 L+	TS14	14
TH-45	"M" 970+36 L+	TS14	14
TH-49	"M" 1017+15 R+	TS14	14
TH-51	"M" 1053+15 R+	TS14	14
TH-55	"M" 1102+73 R+	TS14	14
TH-63a	"M" 1213+73 L+	TS14	14
TOTAL			182

TEMPORARY ALTERNATIVE CRASH CUSHION

SHEET No.	STATION	Temp ALTERNATIVE CRASH CUSHION (ABSORB 350)
		EA
TH-45	"M" 965+76 L+	1
TOTAL		1

2

REVISIED PER ADDENDUM No. 2  
DATED JUNE 3, 2015

TRAFFIC HANDLING QUANTITIES

THQ-1

BORDER LAST REVISED 7/2/2010

USERNAME =>ernie\_garnica  
DGN FILE => 0414000489mf001.add2.dgn

RELATIVE BORDER SCALE IS IN INCHES

0123

UNIT 0750

PROJECT NUMBER & PHASE

04140004891

DATE PLOTTED =>6/2/2015  
TIME PLOTTED => 4:53:04 PM

LAST REVISION  
4-08-15



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RAMSEY HISSEN

CONSULTANT FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

CHECKED BY

ROBERT PADERNA

DAVID WILLIAMS

REVISED BY

DATE REVISED

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS [N]

SHEET No.	SIGN No.	SIGN CODE	PANEL SIZE	POST SIZE	ROADSIDE SIGN	REMARKS
			IN x IN	IN x IN	ONE POST	
TH-1	TH1-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH1-2	R86-3 (CA)	36 x 66			LEFT LANE HOV 2+ ONLY, 5-9AM, 3-7PM, MON-FRI
	TH1-3	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-3	TH3-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH3-2	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH3-3	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
TH-4	TH4-1	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-5	TH5-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH5-2	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH5-3	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-6	TH6-1	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-7	TH7-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH7-2	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH7-3	W21-5	48 x 48			SHOULDER WORK
	TH7-4	W7-3aP (16 MILES)	24 x 18			NEXT 16 MILES
	TH7-5	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-8	TH8-1	W21-5	48 x 48			SHOULDER WORK
	TH8-2	W7-3aP (16 MILES)	24 x 18			NEXT 16 MILES
	TH8-3	W21-5	48 x 48	6 x 6	x	SHOULDER WORK
	TH8-4	W7-3aP (16 MILES)	24 x 18			NEXT 16 MILES
	TH8-5	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
TH-9	TH9-1	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-10	TH10-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH10-2	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-11	TH11-1	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-12	TH12-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH12-2	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
TH-13	TH13-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH13-2	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH13-3	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
TH-15	TH15-1	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-16	TH16-1	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH16-2	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
TH-17	TH17-1	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-18	TH18-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH18-2	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-19	TH19-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH19-2	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-21	TH21-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH21-2	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH21-3	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
TH-22	TH22-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH23-1	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-23	TH23-2	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH23-3	C30A (CA)	48 x 48	6 x 6	x	SHOULDER CLOSED
TH-24	TH24-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH24-2	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-25	TH25-1	C30A (CA)	48 x 48	6 x 6	x	SHOULDER CLOSED
TH-26	TH26-1	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH26-2	C30A (CA)	48 x 48	6 x 6	x	SHOULDER CLOSED
	TH26-3	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH26-4	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH26-5	C30A (CA)	48 x 48			SHOULDER CLOSED
TH-27	TH27-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH27-2	W21-5b (R+)	48 x 48	6 x 6	x	RIGHT SHOULDER CLOSED AHEAD
	TH27-3	W21-5b (R+)	48 x 48	6 x 6	x	RIGHT SHOULDER CLOSED AHEAD
TH-28	TH28-1	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH28-2	C30A (CA)	48 x 48	6 x 6	x	SHOULDER CLOSED
TH-29	TH29-1	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH29-2	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH29-3	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
TH-30	TH30-1	W21-5b (L+)	48 x 48			LEFT SHOULDER CLOSED AHEAD
	TH30-2	C30A (CA)	48 x 48			SHOULDER CLOSED
	TH30-3	C30A (CA)	48 x 48	6 x 6	x	SHOULDER CLOSED
SHEET TOTAL OF THQ-2					8	

[N] = NOTE FOR SEPARATE PAY ITEM, FOR INFORMATION ONLY

TYPE III BARRICADE

SHEET No.	EA
TH-1	2
TH-2	1
TH-3	3
TH-4	1
TH-5	3
TH-6	1
TH-7	3
TH-8	2
TH-9	1
TH-10	2
TH-11	1
TH-12	2
TH-13	3
TH-15	1
TH-16	2
TH-17	1
TH-18	2
TH-19	2
TH-21	3
TH-22	1
TH-23	2
TH-24	2
TH-25	0
TH-26	4
TH-27	1
TH-28	1
TH-29	3
TH-30	2
TH-31	2
TH-33	2
TH-34	1
TH-35	3
TH-37	1
TH-38	2
TH-39	1
TH-41	1
TH-42	1
TH-43	1
TH-44	2
TH-46	4
TH-47	1
TH-48	2
TH-49	1
TH-50	2
TH-51	1
TH-52	1
TH-53	2
TH-54	1
TH-57	2
TH-58	2
TH-59	3
TH-60	1
TH-61	3
TH-62	1
TH-64	3
TOTAL	99

CHANNELIZER (SURFACE MOUNTED)

SHEET No.	EA
TH-1	16
TH-2	29
TH-4	32
TH-5	21
TH-6	59
TH-7	39
TH-9	27
TH-10	10
TH-11	30
TH-12	33
TH-13	3
TH-14	18
TH-15	13
TH-17	17
TH-18	34
TH-19	17
TH-20	33
TH-22	46
TH-23	20
TH-24	21
TH-25	17
TH-26	14
TH-27	3
TH-28	52
TH-29	16
TH-30	35
TH-31	26
TH-32	30
TH-33	19
TH-34	15
TH-36	33
TH-40	29
TH-43	17
TH-44	28
TH-45	45
TH-47	26
TH-48	29
TH-49	16
TH-51	18
TH-52	18
TH-55	61
TH-56	30
TH-57	16
TH-58	13
TH-59	26
TH-60	22
TH-61	23
TH-62	18
TH-63	119
TH-63a	16
TH-65	50
TH-66	39
TOTAL	1,437

OBJECT MARKER (TYPE P)

SHEET No.	EA
TH-1	1
TH-2	2
TH-4	2
TH-5	2
TH-6	2
TH-7	2
TH-9	1
TH-10	1
TH-11	2
TH-12	2
TH-14	2
TH-18	4
TH-20	2
TH-22	4
TH-23	2
TH-24	2
TH-25	2
TH-26	2
TH-28	4
TH-29	1
TH-30	3
TH-31	2
TH-32	2
TH-33	2
TH-36	2
TH-40	4
TH-43	1
TH-44	1
TH-45	5
TH-47	2
TH-48	2
TH-49	2
TH-51	2
TH-52	2
TH-55	3
TH-56	2
TH-57	2
TH-59	2
TH-60	2
TH-61	2
TH-63	2
TH-63a	2
TOTAL	91



REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015 TRAFFIC HANDLING QUANTITIES



THQ-2

APPROVED FOR TRAFFIC HANDLING WORK ONLY



27' 27' 8' 18' 1'

R3-44 Mod R3-44 Mod

OS37-1

(SEE DETAIL ON THE RIGHT)

FASTRAK ONLY

5AM-9AM 3PM-7PM MON - FRI

8.3' D = 8.8'

9'

"M" LINE POST TYPE VIII h = 15.6'

SPECIAL EL3 (FNBT) (SEE NOTE 6)

18.5' Min

20.5' Min

BOTTOM OF BASE PLATE Elev 401.82

1.7' 4' 7' 12' 12'

Conc BARRIER TYPE 60GE Mod (CASE 1)

OG

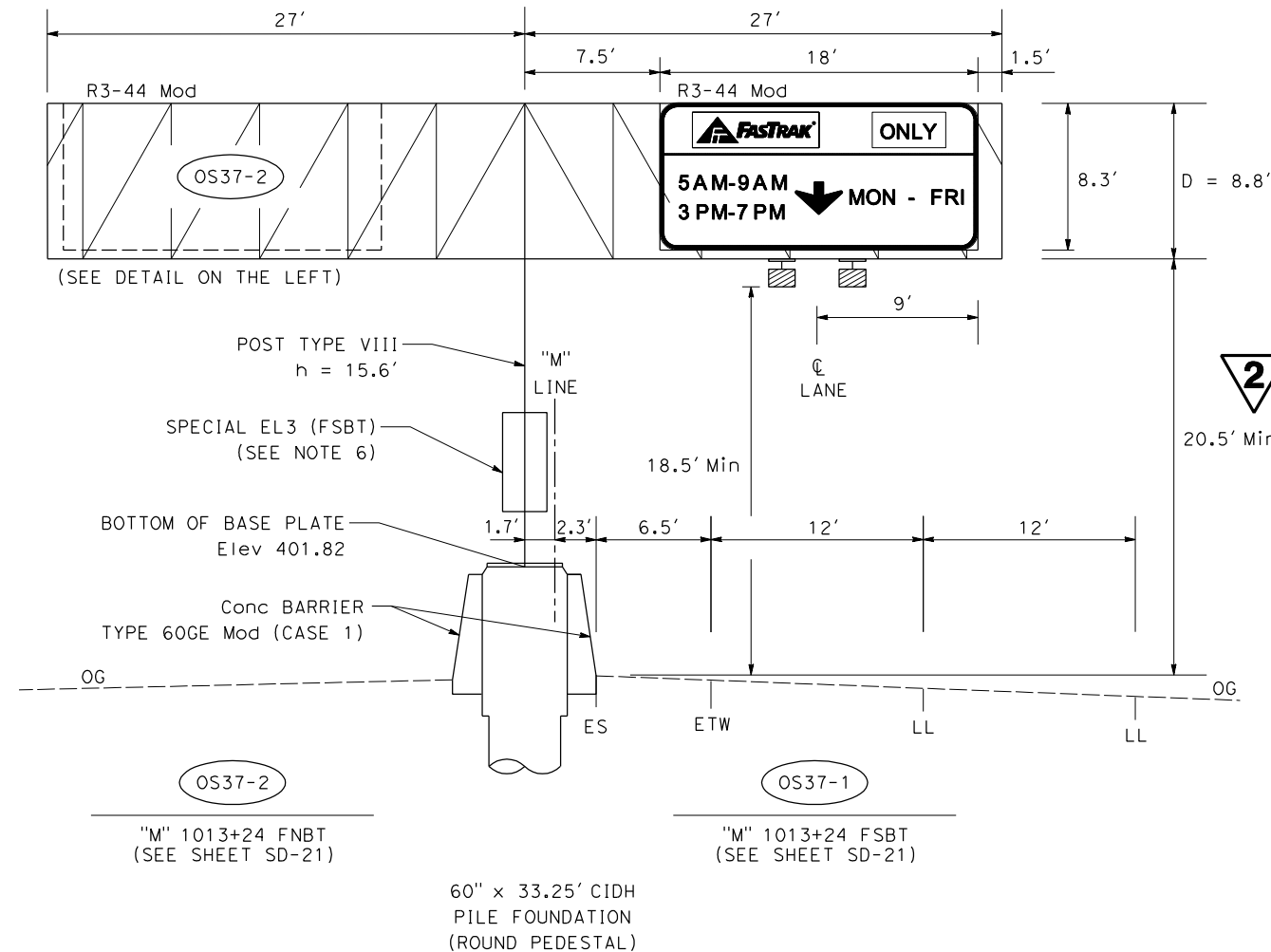
ES ETW LL LL

OS37-1 OS37-2

"M" 1013+24 FSBT (SEE SHEET SD-21)

"M" 1013+24 FNBT (SEE SHEET SD-21)

60" x 33.25' CIDH PILE FOUNDATION (ROUND PEDESTAL)




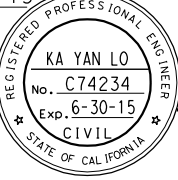
FOR NOTES AND LEGEND,  
SEE SHEET SD-1

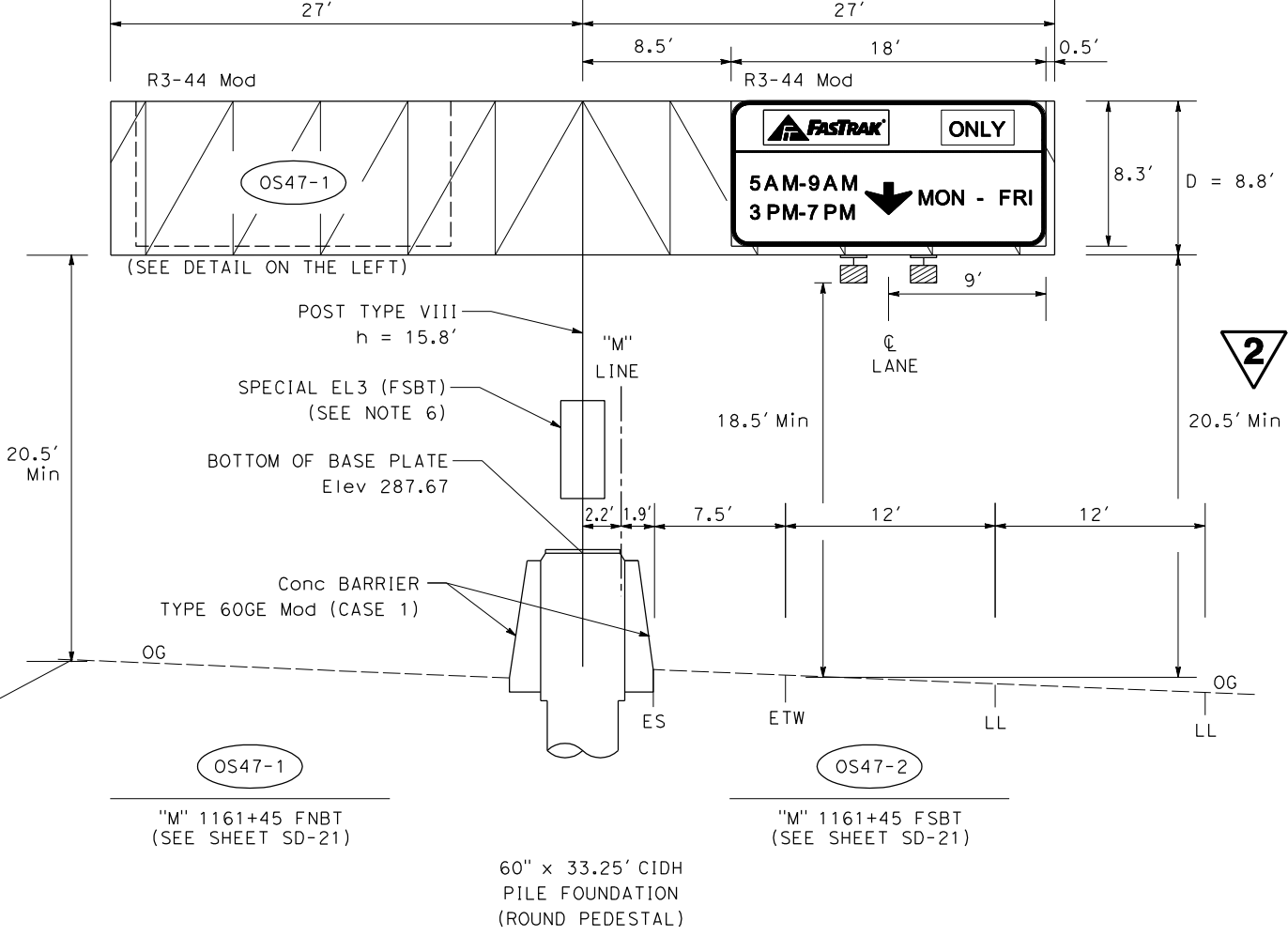
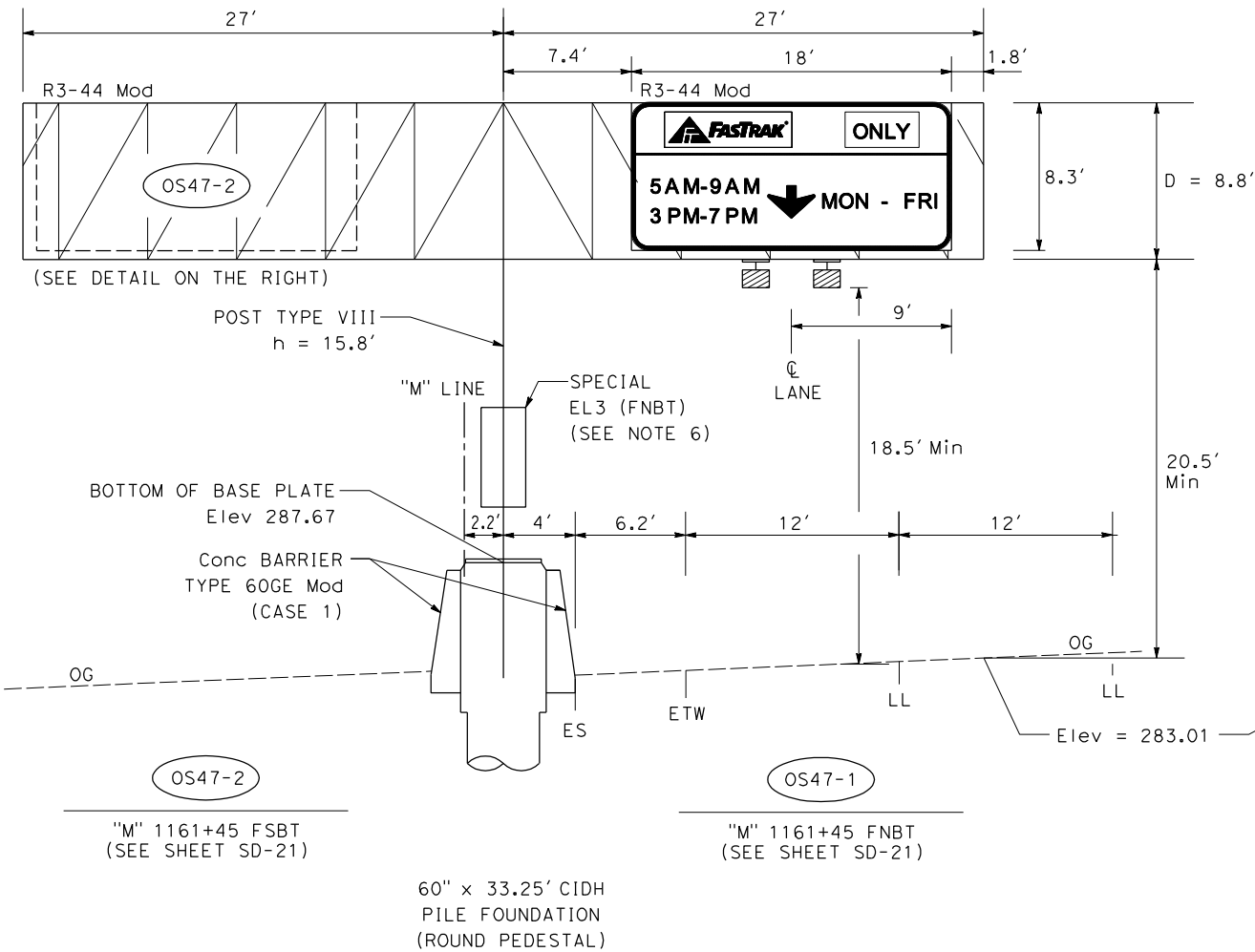
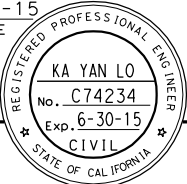
**2 REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015**

**SIGN DETAILS**  
NO SCALE  
**SD-13**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	KAREN LO	REVISOR	DATE
RAMSEY HISSON	REVISOR	DATE	REVISOR	DATE	REVISOR	DATE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	428	617
 REGISTERED CIVIL ENGINEER			4-08-15 DATE		
4-21-15					
PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
URS CORPORATION 100 W. SAN FERNANDO St SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH St, 3rd Floor OAKLAND, CA 94607		



FOR NOTES AND LEGEND,  
SEE SHEET SD-1




REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

**SIGN DETAILS**  
NO SCALE  
**SD-17**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



CONSULTANT FUNCTIONAL SUPERVISOR

RAMSEY HISSEN

CALCULATED-DESIGNED BY

CHECKED BY

KAREN LO

DAVID WILLIAMS

REVISED BY

DATE REVISED

TEMPORARY FENCE					
SHEET No.	STATION	LOCATION	TYPE ESA	WILDLIFE EXCLUSION (TYPE E)	
			LF	LF	
L-3	"M" 484+30 TO "M" 487+46	L+	867.1		
L-3	"M" 486+32 TO "M" 490+46	L+	598.0		
L-4	"M" 501+98 TO "M" 501+98	R+	46.4		
L-4	"M" 501+98 TO "M" 508+32	R+	636.8		
L-8	"M" 550+91 TO "M" 550+91	L+	38.8		
L-8	"M" 550+91 TO "M" 557+87	R+	843.4		
L-8	"M" 555+51 TO "M" 561+80	L+	631.9		
L-9, L-10	"M" 571+89 TO "M" 583+56	L+	1239.8		
L-9, L-10	"M" 578+34 TO "M" 588+55	R+	1065.5		
L-10	"M" 578+60 TO "M" 579+89	L+	225.2		
L-10	"M" 580+43 TO "M" 583+57	L+	564.7		
L-11	"M" 593+55 TO "M" 601+67	L+	861.4		
L-11	"M" 601+67 TO "M" 606+00	L+		513.8	
L-12	"M" 608+61 TO "M" 619+50	L+	1160.0		
L-12, L-13	"M" 619+50 TO "M" 626+16	L+		700.0	
L-13, L-14, L-15	"M" 627+89 TO "M" 649+00	L+	2248.8		
L-15, L-16	"M" 661+56 TO "M" 669+53	L+	848.8		
L-16, L-17	"M" 670+15 TO "M" 688+08	L+	1839.1		
L-18, L-19, L-20a	"M" 698+92 TO "M" 720+08	R+	2373.8		
L-19, L-20	"M" 707+47 TO "M" 721+33	L+	1496.2		
L-20, L-21	"M" 723+60 TO "M" 732+17	L+	1147.8		
L-20a, L-21	"M" 721+39 TO "M" 732+18	R+	1281.0		
L-21, L-22	"M" 739+30 TO "M" 754+15	L+	1575.4		
L-21, L-22, L-23	"M" 743+56 TO "M" 760+62	R+	1765.0		
L-23	"M" 765+62 TO "M" 767+19	R+	191.1		
L-24, L-25a	"M" 780+27 TO "M" 790+11	R+	1399.6		
L-24, L-25	"M" 780+27 TO "M" 788+52	L+	1088.2		
L-24, L-25	"M" 780+98 TO "M" 788+40	L+	2000.8		
L-24, L-25a	"M" 783+24 TO "M" 788+29	R+	1253.0		
L-25a	"M" 790+90 TO "M" 795+97	R+	1745.6		
L-25a	"M" 791+60 TO "M" 796+36	R+	875.6		
L-26	"M" 803+41 TO "M" 811+26	R+	807.9		
L-27	"M" 816+12 TO "M" 823+23	L+	763.0		
L-29	"M" 848+03 TO "M" 849+89	R+	215.7		
L-29	"M" 853+60 TO "M" 854+61	R+	174.6		
L-33, L-34	"M" 899+86 TO "M" 911+43	L+	1357.4		
L-34, L-35	"M" 914+94 TO "M" 925+96	L+	1350.5		
L-36	"M" 946+05 TO "M" 946+05	L+	98.2		
L-38	"M" 963+07 TO "M" 964+36	L+	341.1		
L-38	"M" 963+49 TO "M" 964+09	L+	81.7		
L-38	"M" 969+35 TO "M" 972+05	L+	289.2		
L-38	"M" 969+35 TO "M" 972+17	R+	293.2		
L-38	"M" 969+35 TO "M" 973+42	R+	461.8		
L-38	"M" 969+35 TO "M" 974+38	L+	550.5		
L-39, L-40	"M" 976+94 TO "M" 1000+28	L+	2486.3		
L-39, L-40	"M" 984+93 TO "M" 994+50	R+	1074.6		
L-40	"M" 994+55 TO "M" 1000+43	L+	1236.4		
L-40, L-41	"M" 1001+08 TO "M" 1008+36	L+	1596.5		
L-41	"M" 1002+65 TO "M" 1011+60	R+	1036.1		
L-42, L-43	"M" 1019+26 TO "M" 1029+95	R+	1099.9		
L-43, L-44	"M" 1030+64 TO "M" 1053+94	L+	2399.1		
L-43	"M" 1031+14 TO "M" 1035+04	R+	743.0		
L-43, L-44	"M" 1031+87 TO "M" 1054+03	R+	2359.6		
L-44	"M" 1053+94 TO "M" 1055+22	L+		203.1	
L-44	"M" 1054+03 TO "M" 1056+78	R+		338.5	
L-45	"M" 1057+75 TO "M" 1061+51	R+		456.8	
L-45, L-46, L-47, L-48	"M" 1061+51 TO "M" 1100+77	R+	3911.9		
L-48, L-49	"M" 1100+77 TO "M" 1116+58	R+		1537.9	
L-49	"M" 1112+47 TO "M" 1113+38	L+	224.8		
L-49	"M" 1112+81 TO "M" 1115+53	L+	917.7		
L-49	"M" 1117+40 TO "M" 1121+03	R+	457.0		
L-49, L-50	"M" 1121+20 TO "M" 1123+87	R+		688.5	

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

TEMPORARY FENCE (CONTINUE)

SHEET No.	STATION	LOCATION	TYPE ESA	WILDLIFE EXCLUSION (TYPE E)	
			LF	LF	
L-50	"M" 1135+90 TO "M" 1137+50	R+		159.3	
L-51, L-52	"M" 1137+50 TO "M" 1160+80	R+	2371.2		
L-52	"M" 1160+75 TO "M" 1160+75	R+		30.9	
L-52	"M" 1160+80 TO "M" 1162+88	R+		383.0	
L-52	"M" 1155+94 TO "M" 1160+74	L+	986.9		
L-52	"M" 1158+64 TO "M" 1160+75	R+	455.7		
L-52	"M" 1159+27 TO "M" 1160+73	L+	187.0		
L-52, L-53, L-54	"M" 1165+28 TO "M" 1189+57	R+		2430.0	
L-54, L-55, L-56, L-57	"M" 1189+57 TO "M" 1229+55	R+	4020.6		
L-55, L-56	"M" 1203+40 TO "M" 1209+80	L+	639.7		
L-56, L-57	"M" 1209+80 TO "M" 1221+29	L+		1374.5	
L-57, L-58	"M" 1221+29 TO "M" 1232+28	L+	1122.5		
L-57	"M" 1225+48 TO "M" 1229+74	L+	458.3		
L-57	"M" 1226+09 TO "M" 1229+60	R+	696.7		
L-57	"M" 1229+60 TO "M" 1229+60	R+		33.0	
L-57, L-58	"M" 1229+56 TO "M" 1235+55	R+		581.6	
L-57, L-58	"M" 1231+60 TO "M" 1235+58	R+		385.6	
L-58	"M" 1235+23 TO "M" 1235+75	L+	49.8		
L-58	"M" 1235+33 TO "M" 1238+70	L+ / R+	608.3		
L-58	"M" 1238+14 TO "M" 1238+85	L+	93.0		
L-58	"M" 1242+18 TO "M" 1245+32	R+	685.5		
L-59, L-60	"M" 1261+40 TO "M" 1267+77	R+	1209.2		
L-60	"M" 1263+13 TO "M" 1270+08	L+	1930.2		
L-60	"M" 1263+91 TO "M" 1266+56	L+	908.0		
L-61	"M" 1278+08 TO "M" 1285+19	L+	727.5		
L-63	"M" 1310+26 TO "M" 1314+00	L+	805.4		
TOTAL			74,592.2	11,416.0	

ROADWAY QUANTITIES

SHEET No.	STATION	LOCATION	HOT MIX ASPHALT (TYPE A)
			TON
L-3	"M" 483+16.91 TO "M" 484+43.08	R+	22.1
L-7	"M" 547+47.00 TO "M" 549+20.92	L+ & R+	67.6
L-7 TO L-9	"M" 539+50.00 TO "M" 569+38.00	R+	478.5
L-15	"M" 657+88.60 TO "M" 658+73.30	L+	36.8
L-17	"M" 688+18.43 TO "M" 689+03.43	L+	36.8
L-18	"M" 692+19.00 TO "M" 693+34.00	L+ & R+	91.4
L-19	"M" 706+44.81 TO "M" 707+29.81	L+	36.0
L-21	"M" 733+82.51 TO "M" 734+67.21	L+	36.8
L-22 TO L-23	"M" 758+84.86 TO "M" 760+15.12	L+	22.8
L-23	"M" 761+18.86 TO "M" 762+03.86	L+	36.8
L-24 TO L-25	"M" 785+78.04 TO "M" 787+49.99	L+ & R+	73.4
	"M" 793+11.97 TO "M" 795+02.00	L+ & R+	81.4
L-33	"M" 899+45.00 TO "M" 900+60.00	L+ & R+	91.4
L-38	"M" 963+97.98 TO "M" 965+65.04	L+ & R+	62.1
	"M" 964+61.71 TO "M" 965+50.06	L+	36.8
L-42	"M" 1018+26.46 TO "M" 1019+11.46	R+	36.8
L-48	"M" 1103+33.00 TO "M" 1104+27.00	L+	27.6
	"M" 1104+06.79 TO "M" 1104+94.42	R+	35.9
L-49	"M" 1113+55.86 TO "M" 1115+29.88	L+ & R+	136.3
L-52	"M" 1160+73.86 TO "M" 1162+16.14	R+	41.6
L-53	"M" 1171+82.21 TO "M" 1175+51.78	L+ & R+	281.9
L-56	"M" 1210+57.88 TO "M" 1211+48.11	R+	26.8
	"M" 1211+75.69 TO "M" 1212+61.85	L+	36.8
L-57	"M" 1230+29.09 TO "M" 1230+69.81	L+	11.8
FROM PLACE HOT MIX ASPHALT DIKE			14.2
TOTAL			1,860.1

SUMMARY OF QUANTITIES

Q-5

Dist

COUNTY

ROUTE

POST MILES TOTAL PROJECT

SHEET No.

TOTAL SHEETS

4

Ala, CC

680

R20.1 / R21.9, R0.0 / 14.0

460

617

4-08-15

DATE

REGISTERED CIVIL ENGINEER

RAMSEY J. HISSEN

No. C39608

Exp. 12-31-15

CIVIL

STATE OF CALIFORNIA

4-21-15

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

URS CORPORATION

100 W. SAN FERNANDO St

SUITE 200

SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY

101 EIGHTH St, 3rd Floor

OAKLAND, CA 94607

SHEET No.	STATION	LOCATION	CONCRETE SLOPE PAVING
			CY
L-33	"M" 902+00.00 TO "M" 902+60.00	L+	11.1
TOTAL			11.1



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY	REVISOR	DATE
RAMSEY HUSSEN	SPENCER LEE	ROBERT PADARNA	DATE	REVISOR	DATE

**NOTE:**  
FOR ACCURATE RIGHT OF WAY DATA, CONTACT BAIFA

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Ala,CC	680	R20.1/R21.9, R0.0/14.0	549	617

Robert Paderna

REGISTERED CIVIL ENGINEER

4-08-15

DATE

4-21-15

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

REGISTERED PROFESSIONAL ENGINEER

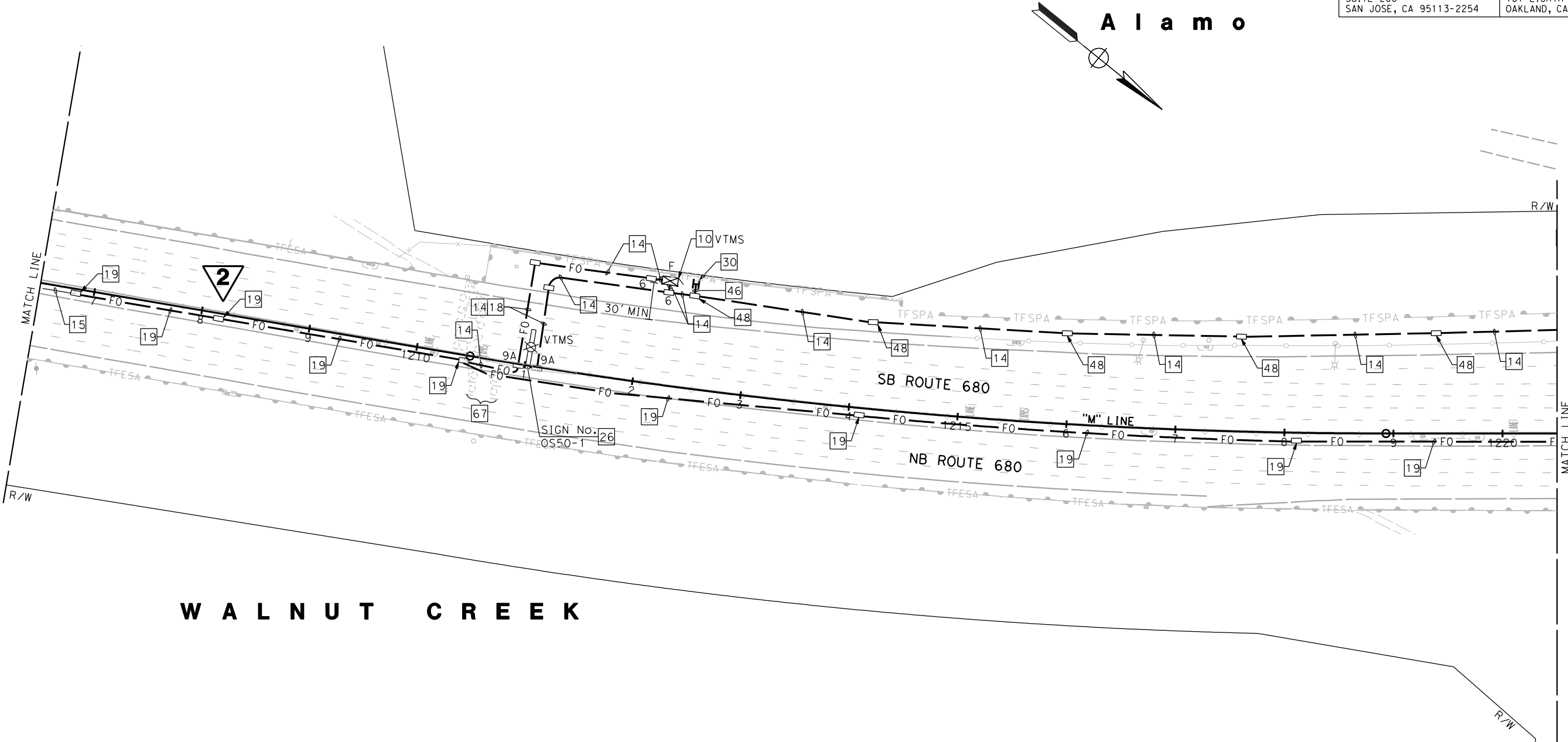
ROBERT PADARNA

No. C73262

Exp. 12-31-16

CIVIL

STATE OF CALIFORNIA



W A L N U T C R E E K

**2** REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015  
APPROVED FOR ELECTRICAL WORK ONLY

**ELECTRONIC TOLL SYSTEM**

SCALE: 1" = 50'

**E-88**

FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEETS E-1 AND E-2



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

CONSULTANT FUNCTIONAL SUPERVISOR

RAMSEY HISSEN

CALCULATED-BY  
DESIGNED BY

CHECKED BY

JOEY PASKEY

KEVIN AGUIGUI

REVISED BY

DATE

REVISIONS

DATE

DATE

TIME

NOTES:

1. THIS PROJECT HAS BEEN DESIGNED USING CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD PLANS AND STANDARD SPECIFICATIONS, 2010 EDITION.

2. ALL NEW INFRASTRUCTURE SHALL BE INSTALLED WITHIN RIGHT-OF-WAY OR EASEMENTS. CONTRACTOR MUST IDENTIFY AND IS RESPONSIBLE FOR ALL UTILITY IDENTIFICATION PRIOR TO INSTALLATION.

3. CALL UNDERGROUND SERVICE ALERT (U.S.A.) AT (800) 227-2600 AT LEAST 48 HOURS PRIOR TO EXCAVATION TO LOCATE ALL EXISTING UNDERGROUND UTILITIES. UTILITY LOCATION SERVICES SHALL MEET LOCAL JURISDICTION REQUIREMENTS.

4. THE FOLLOWING UNDERGROUND FACILITIES MAY BE LOCATED IN THE PROJECT AREA: PULL BOXES, CONDUIT, AND CABLE FOR STREETLIGHTS, TRAFFIC SIGNALS, AND TRAFFIC OPERATIONS SYSTEMS. UNLESS OTHERWISE NOTED, ALL EXISTING FACILITIES SHALL BE PROTECTED-IN-PLACE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE LOCAL JURISDICTION FOR LOCATIONS AT LEAST 2 WORKING DAYS PRIOR TO WORKING IN THE AREA.

5. THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES IS APPROXIMATE AND HAS NOT BEEN INDEPENDENTLY VERIFIED BY THE DESIGN ENGINEER. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON PLANS WERE OBTAINED FROM THE BAY AREA EXPRESS LANES COMMUNICATION NETWORK CONDUIT TESTING REPORT AND CALTRANS RECORDS AND PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION. THE CONTRACTOR WILL NOT BE COMPENSATED FOR THE REPAIR OF UTILITIES OR SURROUNDING INFRASTRUCTURE THAT IS DAMAGED DURING CONSTRUCTION.

6. CONTRACTOR SHALL PROTECT ALL EXISTING INFRASTRUCTURE AREAS NOT SPECIFIED FOR REMOVAL, AND SHALL BE RESPONSIBLE TO REPLACE OR REPAIR ANY DAMAGED INFRASTRUCTURE AREAS IN A TIMELY MANNER AT NO ADDITIONAL COST. THE CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING PLANTINGS, MATERIALS, AESTHETIC FEATURES, LANDSCAPING, AND IRRIGATION SYSTEMS, AND REPLACE OR RECONSTRUCT ANY PLANTS, MATERIALS, AESTHETIC FEATURES, LANDSCAPING, AND IRRIGATION SYSTEMS DAMAGED DURING THE COURSE OF CONSTRUCTION PER THE LANDSCAPE AND AESTHETICS PERFORMANCE SPECIFICATION.

7. CONDUIT ROUTING, PULL BOX, POLE, AND CABINET LOCATIONS ARE SCHEMATIC FOR THE PURPOSE OF CLARITY AND MAY DIFFER FROM ACTUAL INSTALLATION. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

8. ALL NEW CONDUIT SHALL BE INSTALLED PER THE CALTRANS STANDARD SPECIFICATIONS AND PER SPECIFIED DETAILS ON THESE SHEETS UNLESS OTHERWISE NOTED ON THE PLANS.

9. THE CONTRACTOR SHALL PLACE ALL CONDUIT IN A MANNER THAT MINIMIZES HORIZONTAL AND VERTICAL BENDING, NOT TO EXCEED 1 FOOT PER 10 FEET.

10. ANY REMOVAL OF PAVEMENT NECESSARY TO FACILITATE INSTALLATION OF CONDUIT UNDER ROADWAY SHALL BE REPLACED TO ITS ORIGINAL CONDITION.

11. PULL BOXES SHALL BE INSTALLED PER STANDARD PLANS AND PER DETAILS IN THESE PLANS. PULL BOXES SHALL NOT BE INSTALLED IN SIDEWALK RAMPS NOR IN OR WITHIN TEN (10) FEET OF ANY DRIVEWAY OR LOCATED IN SWALES OR DITCHES. PULL BOXES TO BE INSTALLED IN THE PAVED ROADWAY SHOULDER SHALL BE TRAFFIC-RATED.

12. THE COMPLETE ELECTRICAL SYSTEM, INCLUDING PULL BOXES AND VAULTS, SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC). ALL WORK SHALL BE IN COMPLIANCE WITH THE NEC AND LOCAL CODES.

13. ELECTRICAL PULL BOXES FOR CONDUIT SYSTEMS THAT DO NOT CONTAIN FIBER OPTIC CABLE SHALL HAVE A MAXIMUM SPACING OF 500'.

14. LOCATION OF EXISTING PULL BOXES, VAULTS, TSCs, ARE APPROXIMATE. CONTRACTOR SHALL LOCATE ALL EXISTING PULL BOXES TO BE UTILIZED AS PART O THE BACKHAUL COMMUNICATIONS SYSTEM PRIOR TO STARTING WORK.

ABBREVIATIONS:

(SEE RSP ES-1A, RSP ES 1-B, RSP ES-1C)

BAIFA

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY

CALTRANS

CALIFORNIA DEPARTMENT OF TRANSPORTATION

E

ELECTRIC

FOB

FACE OF BARRIER

FOT

FIBER OPTIC TRUNKLINE

SMFO

SINGLE MODE FIBER OPTIC

STR

STRAND

LEGEND:

(SEE RSP ES-1A, RSP ES 1-B, RSP ES-1C)

NEW

EXISTING

FB

FIBER OPTIC PULL BOX (SEE SHEET E-17 FOR INSTALLATION DETAIL)

INDEX OF BACKHAUL COMMUNICATION PLANS:

SHEET NUMBER

TITLE

EE-1

NOTES, LEGEND, ABBREVIATIONS, AND INDEX OF BACKHAUL COMMUNICATIONS PLANS (CONDUIT RE-ROUTING DETAILS)

EE-2 TO EE-16

BACKHAUL COMMUNICATIONS DETAILS (FIBER OPTIC PULL BOX)

EE-17

BACKHAUL COMMUNICATIONS DETAILS (FIBER OPTIC PULL BOX)

EE-18

BACKHAUL COMMUNICATIONS DETAILS (FIBER OPTIC MARKER)

EE-19

BACKHAUL COMMUNICATIONS DETAILS (LOOP DETECTOR PLACEMENT DETAIL)

EE-20

BACKHAUL COMMUNICATIONS DETAILS (BORE PIT BACKFILL)

EE-21

BACKHAUL COMMUNICATIONS DETAILS (TRUNKLINE MODIFICATION)

EE-22

BACKHAUL COMMUNICATIONS QUANTITIES

LEGEND:

1

Exist 3"C, 1-72 STR SMFO CABLE.

2

INSTALL 3"C, PT.

3

INSTALL 3-3"C, PT, 2#4 (120 V TOS POWER).

4

Exist 3-3"C, PT, 2#4 (120 V TOS POWER).

5

RC Exist No. 6 PULL BOX AND INSTALL FIBER OPTIC PULL BOX WITH EXTENSIONS AND MODIFY EXISTING CONDUIT RUNS AS REQUIRED FOR FIBER OPTIC INSTALLATION. SEE DETAIL A ON SHEET E-21.

6

SPLICE NEW LOOP WIRES TO Exist 4 DLC.

7

SEE LOOP DETECTOR PLACEMENT DETAIL ON SHEET E-19.

8

INSTALL 3"C AND CC TO Exist 3"C. TERMINATE CONDUIT IN NEW No. 6 PULL BOX. SPLICE Exist DLC TO NEW DLC IN NEW NO. 6 PULL BOX AS INDICATED ON THE PLANS.

9

SPLICE Exist 2#4 CONDUCTORS TO NEW 2#4 CONDUCTORS IN PULL BOX.

10

INSTALL CONDUIT VIA HORIZONTAL DIRECTIONAL DRILL METHOD.

11

INSTALL 3" C STUB-UP TO LOOPS.

12

Exist 3"C, PT.

13

Exist 3"C, 1-12 STR SMFO CABLE.

14

Exist 3"C, 2-72 STR SMFO CABLE.

NOTES, LEGEND, ABBREVIATIONS, AND INDEX OF BACKHAUL COMMUNICATION PLANS

EE-1

BORDER LAST REVISED 7/2/2010

USERNAME =>ernie\_garnica  
DGN FILE => 0414000489ua106.add2.dgn

RELATIVE BORDER SCALE IS IN INCHES

0

1

2

3

UNIT 0750

PROJECT NUMBER & PHASE

04140004891

DATE PLOTTED => 6/2/2015

TIME PLOTTED => 4:56:28 PM



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY	JOEY PASKEY	REVISED BY	DATE REVISED
	RAMSEY HISSEN					

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566B	617

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

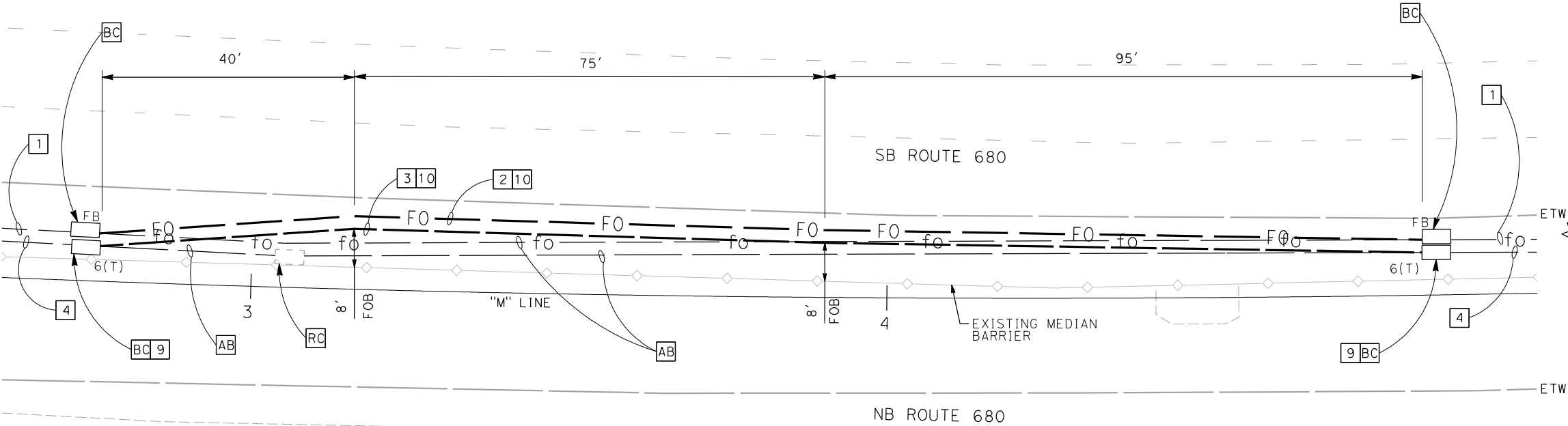
5-15-15  
PLANS APPROVAL DATE

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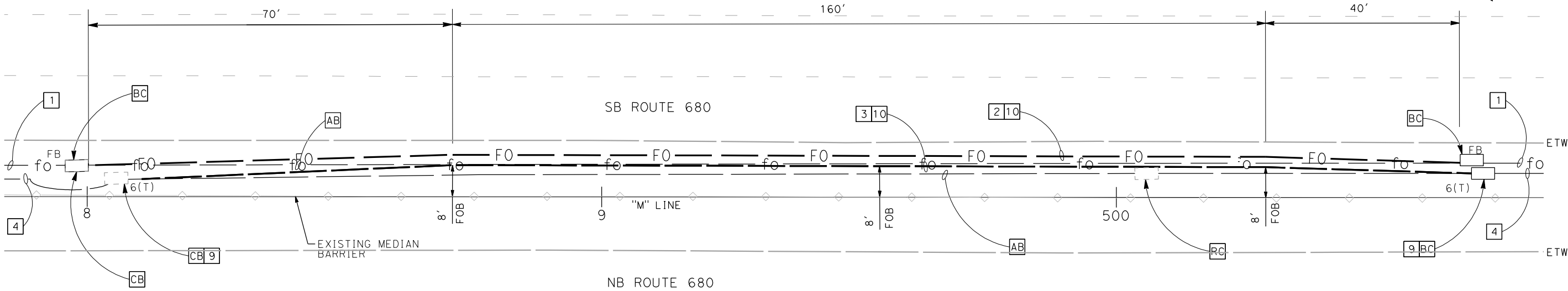
URS CORPORATION  
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SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE  
FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

5-13-15  
REGISTERED PROFESSIONAL ENGINEER  
No. C39608  
Exp. 12-31-15  
CIVIL  
STATE OF CALIFORNIA



DETAIL 1  
"M" 482+36 TO 485+06  
(SEE SHEET E-35)



NOTES:

1. INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



DETAIL 2  
"M" 498+00 TO 500+67  
(SEE SHEET E-36)

FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEET EE-1

APPROVED FOR ELECTRICAL WORK ONLY

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

EE-2



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	JOEY PASKEY	REVISOR	DATE
RAMSEY HISSEN	CHECKED BY	KEVIN AGUIGUI	DATE	REVISOR	DATE

2 REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566C	617

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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REGISTERED CIVIL ENGINEER  
DATE

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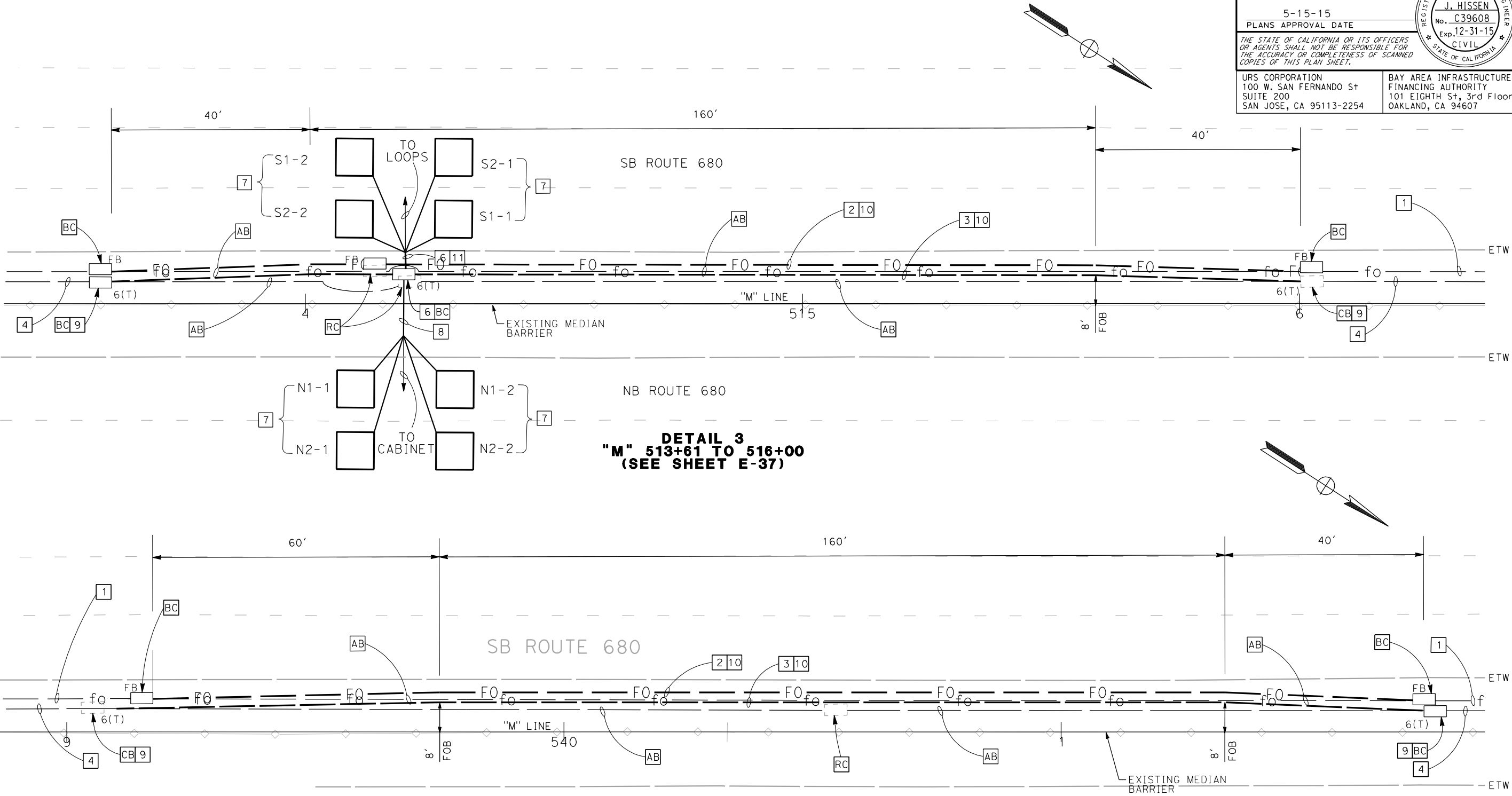
5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607



NOTES:

1. INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET EE-1

DETAIL 4  
"M" 539+17 TO 541+73  
(SEE SHEET E-39)

APPROVED FOR ELECTRICAL WORK ONLY

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

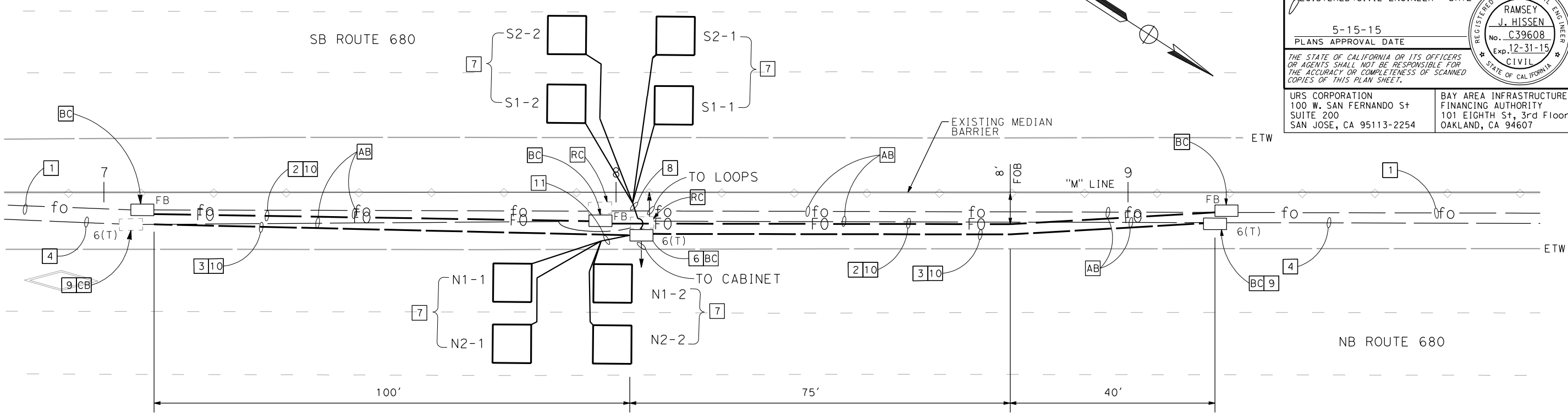
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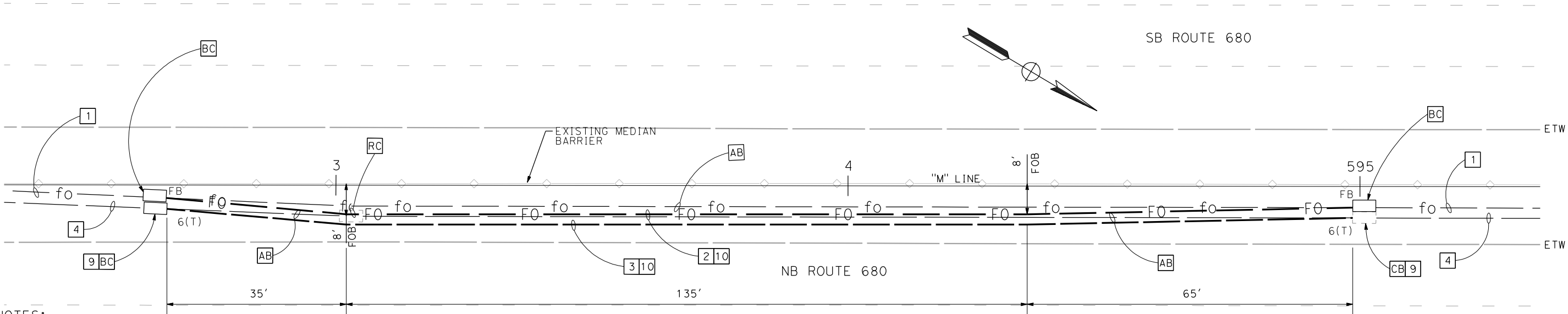
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR		JOEY PASKEY	REVISED BY	•
	RAMSEY HISSEN				
	CHECKED BY				
	KEVIN AGUIGUI				
DATE REVISED	DATE REVISED		•		

**2** REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566D	617
REGISTERED CIVIL ENGINEER			5-13-15	DATE	
5-15-15			PLANS APPROVAL DATE		
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URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH ST, 3rd Floor OAKLAND, CA 94607		



**DETAIL 5**  
"M" 547+10 TO 549+17  
(SEE SHEET E-39)



**NOTES:**

1. INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET EE-1

**DETAIL 6**  
"M" 592+67 TO 594+99  
(SEE SHEET E-43)

APPROVED FOR ELECTRICAL WORK ONLY

**BACKHAUL COMMUNICATIONS**  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

**EE-4**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	JOEY PASKEY	REVISOR	DATE
EE-6	RAMSEY HISSEN	CHECKED BY	KEVIN AGUIGUI	REVISED BY	DATE

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566E	617

5-13-15

REGISTERED CIVIL ENGINEER

DATE

5-15-15

PLANS APPROVAL DATE

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101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

REGISTERED PROFESSIONAL ENGINEER

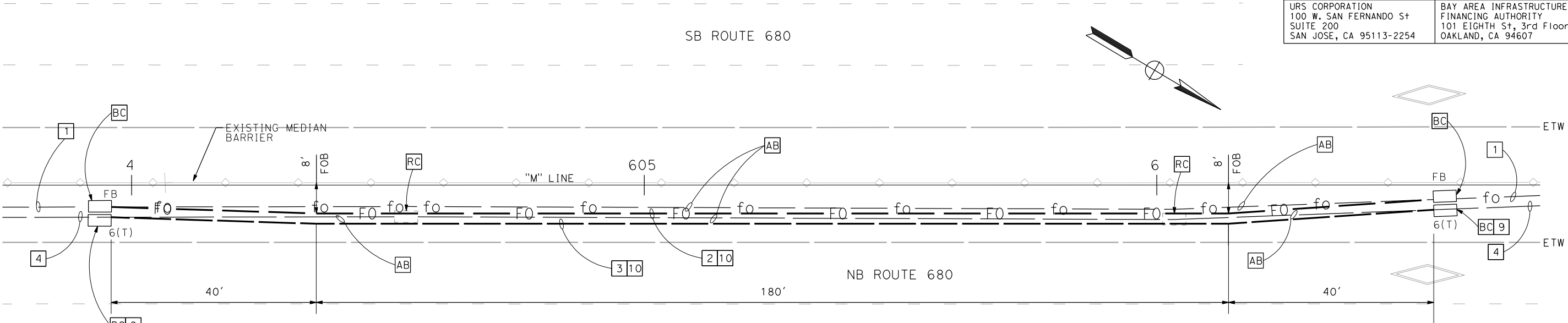
RAMSEY J. HISSEN

No. C39608

Exp. 12-31-15

CIVIL

STATE OF CALIFORNIA





STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR		RAMSEY HISSEN
	CHECKED BY	CALCULATED-DESIGNED BY	
	JOEY PASKEY	KEVIN AGUIGUI	
	REVISOR	DATE	

2 REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

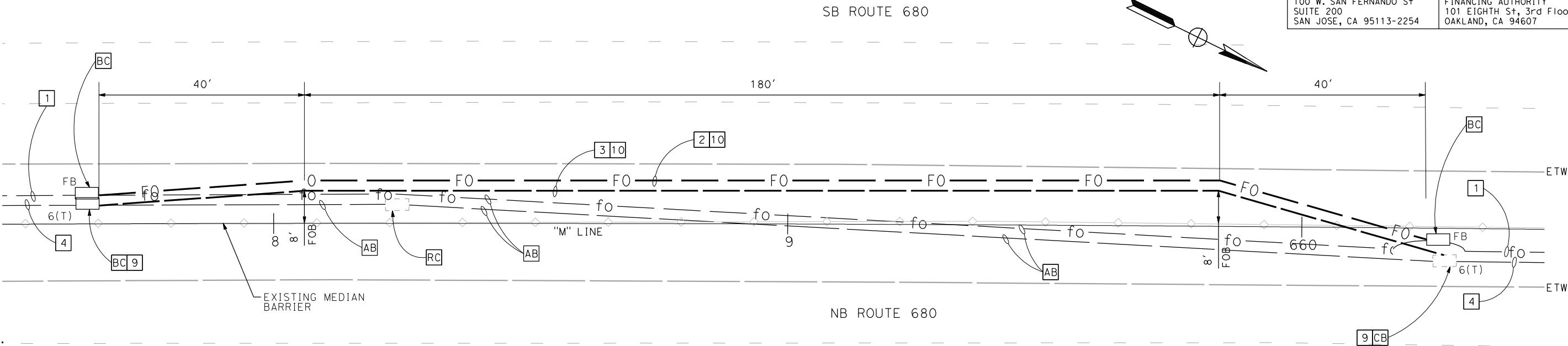
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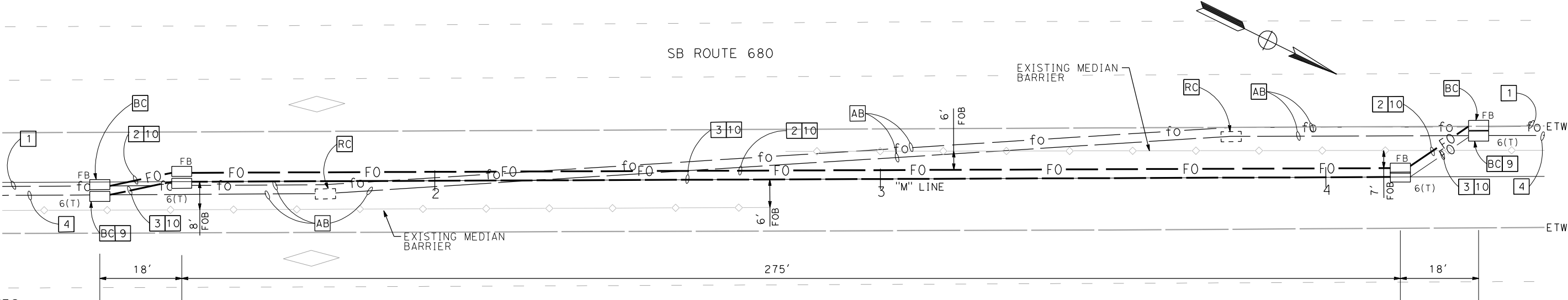
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5-13-15  
REGISTERED CIVIL ENGINEER  
No. C39608  
Exp. 12-31-15  
CIVIL  
STATE OF CALIFORNIA



DETAIL 9  
"M" 657+66 TO 660+28  
(SEE SHEET E-47)



NOTES:

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- 2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET EE-1

DETAIL 10  
"M" 691+27 TO 694+32  
(SEE SHEET E-50)  
APPROVED FOR ELECTRICAL WORK ONLY

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)  
NO SCALE

EE-6



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	JOEY PASKEY	REVISOR	DATE
ET-Giltrans	RAMSEY HISSEN	CHECKED BY	KEVIN AGUIGUI	REVISOR	DATE

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566G	617

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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OAKLAND, CA 94607

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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REGISTERED CIVIL ENGINEER  
DATE

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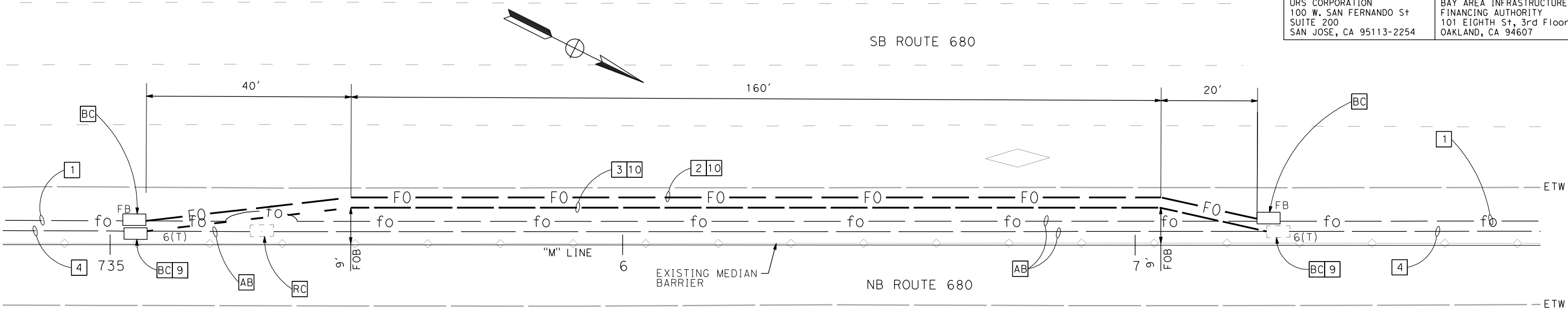
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PLANS APPROVAL DATE

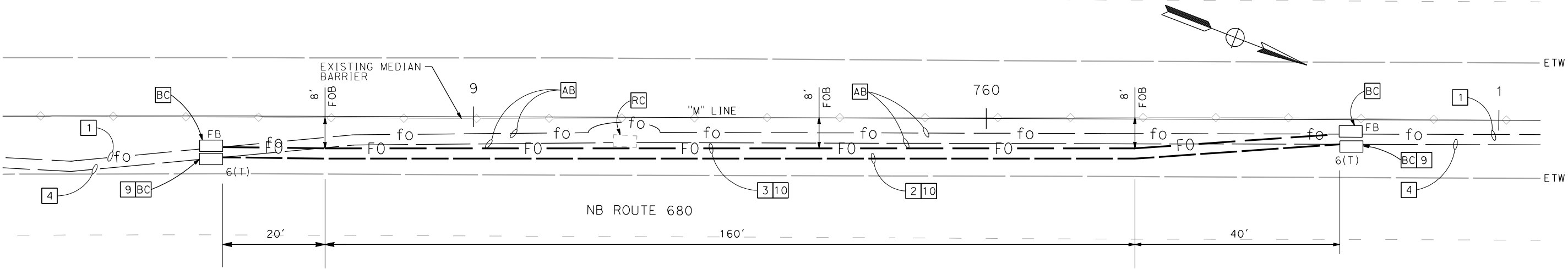
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OAKLAND, CA 94607



DETAIL 11  
"M" 735+07 TO 737+26  
(SEE SHEET E-53)



DETAIL 12  
"M" 758+51 TO 760+69  
(SEE SHEETS E-54 & E-55)

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)  
NO SCALE

NOTES:

1. INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET EE-1

APPROVED FOR ELECTRICAL WORK ONLY

EE-7



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

EE-Caltans

CONSULTANT FUNCTIONAL SUPERVISOR

RAMSEY HISSEN

CALCULATED-DESIGNED BY

CHECKED BY

JOEY PASKEY

KEVIN AGUIGUI

REVISED BY

DATE REVISED

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566H	617

5-13-15  
REGISTERED CIVIL ENGINEER DATE

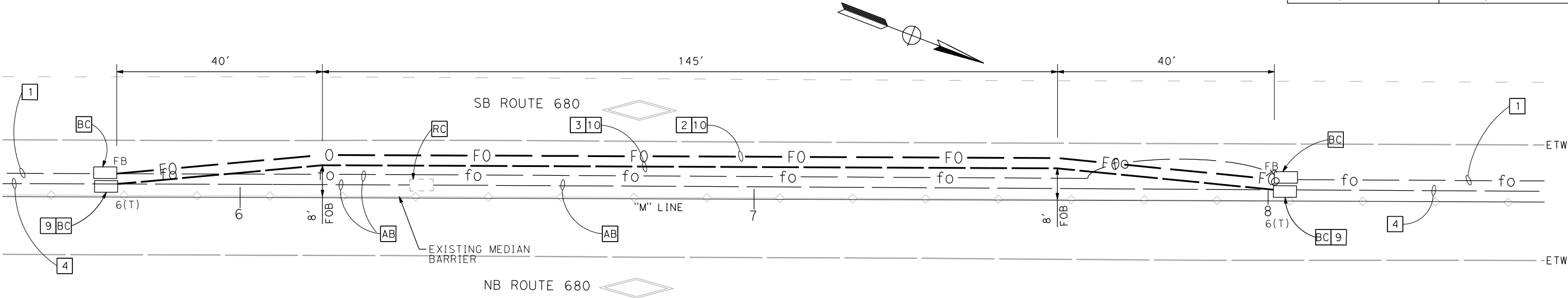
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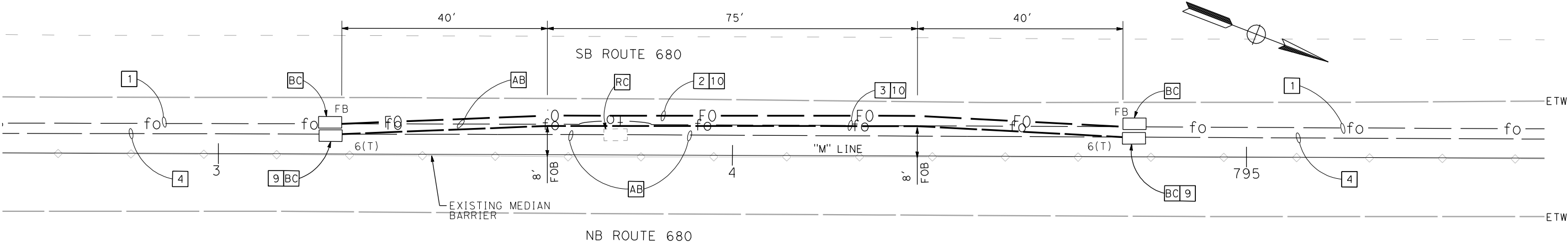
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5-13-15  
REGISTERED PROFESSIONAL ENGINEER  
J. HISSEN  
No. C39608  
Exp. 12-31-15  
CIVIL  
STATE OF CALIFORNIA



DETAIL 13  
"M" 785+76 TO 788+01  
(SEE SHEETS E-56 & E-57)



DETAIL 14  
"M" 793+24 TO 794+76  
(SEE SHEET E-57)

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

EE-8

NOTES:

1. INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.

FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEET EE-1

APPROVED FOR ELECTRICAL WORK ONLY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	JOEY PASKEY	REVISOR	DATE
ET-Consultants	RAMSEY HISSEN	CHECKED BY	KEVIN AGUIGUI		

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

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4	Alameda	680	R20.1/R21.9, R0.0/14.0	5661	617

5-13-15

REGISTERED CIVIL ENGINEER

DATE

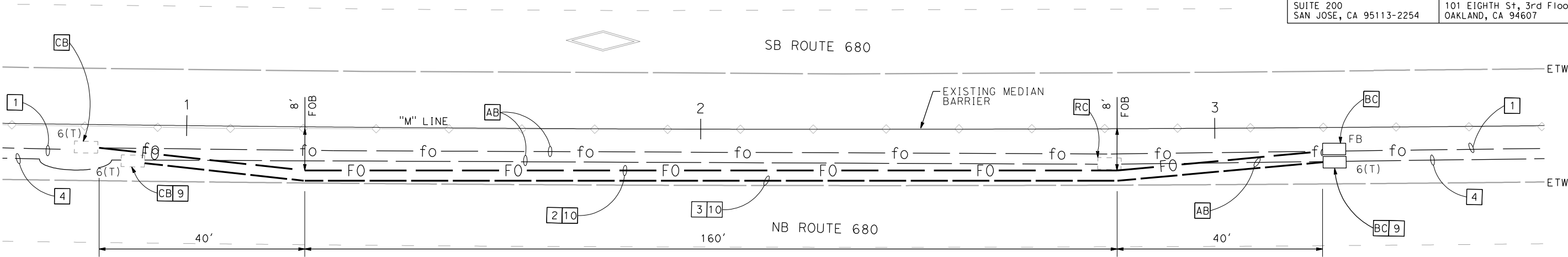
5-15-15  
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

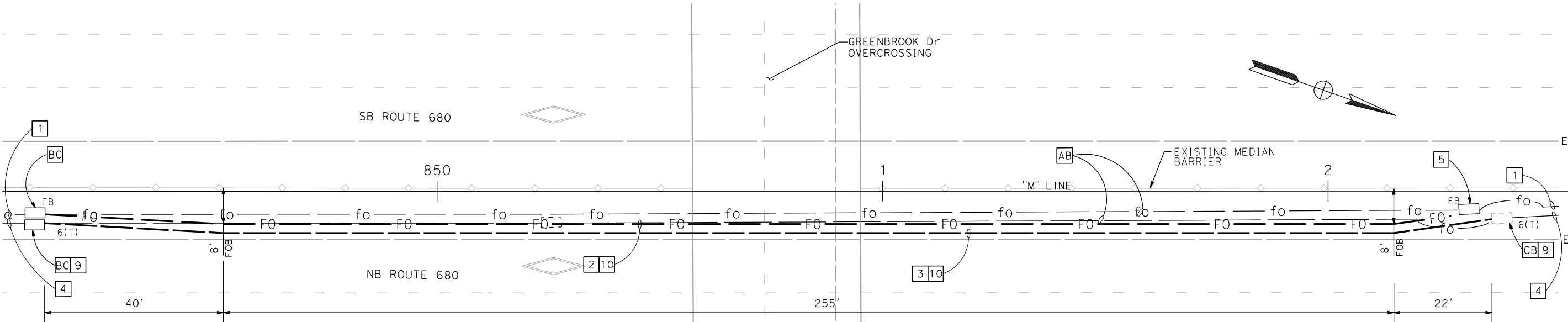
URS CORPORATION  
100 W. SAN FERNANDO ST  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH ST, 3rd Floor  
OAKLAND, CA 94607

REGISTERED PROFESSIONAL ENGINEER  
RAMSEY J. HISSEN  
No. C39608  
Exp. 12-31-15  
CIVIL  
STATE OF CALIFORNIA



DETAIL 15  
"M" 810+83 TO 813+21  
(SEE SHEET E-58)



DETAIL 16  
"M" 849+12 TO 852+37  
(SEE SHEET E-61)

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

EE-9

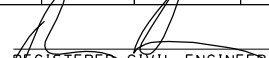
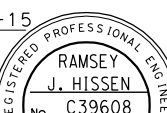
NOTES:

1. INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET EE-1

APPROVED FOR ELECTRICAL WORK ONLY



Dist	COUNTY	ROUTE	TOTAL MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566J	617
 REGISTERED CIVIL ENGINEER			5-13-15 DATE		
5-15-15 PLANS APPROVAL DATE					
<p><i>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</i></p>					
URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH ST, 3rd Floor OAKLAND, CA 94607		



EE-10

FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEET EE-1

APPROVED FOR ELECTRICAL WORK ONLY



**2** REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566K	617

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

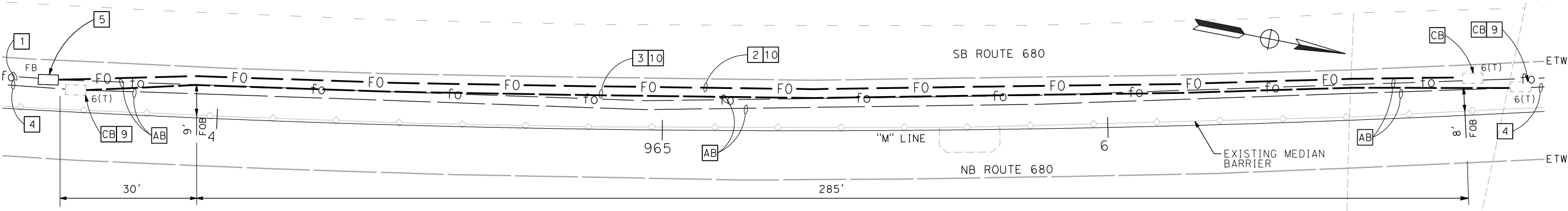
5-15-15  
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS  
OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
THE ACCURACY OR COMPLETENESS OF SCANNED  
COPIES OF THIS PLAN SHEET.

URS CORPORATION  
100 W. SAN FERNANDO ST  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE  
FINANCING AUTHORITY  
101 EIGHTH ST, 3rd Floor  
OAKLAND, CA 94607

5-13-15  
REGISTERED CIVIL ENGINEER  
No. C39608  
Exp. 12-31-15  
CIVIL  
STATE OF CALIFORNIA





STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR		CALCULATED- DESIGNED BY	JOEY PASKEY	REVISED BY	DATE	REVISED
	RAMSEY HISSEN						

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566L	617

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE  
FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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URS CORPORATION  
100 W. SAN FERNANDO St  
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SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE  
FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE  
FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

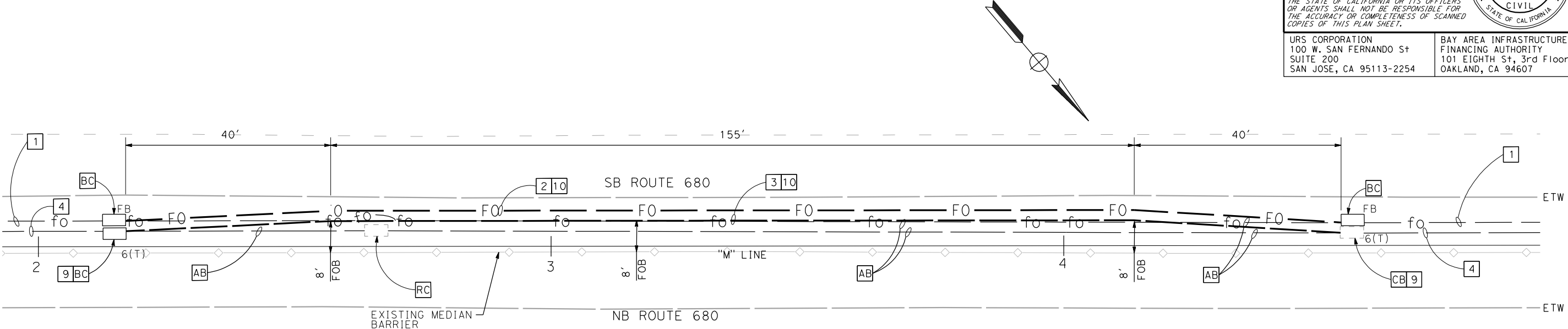
5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

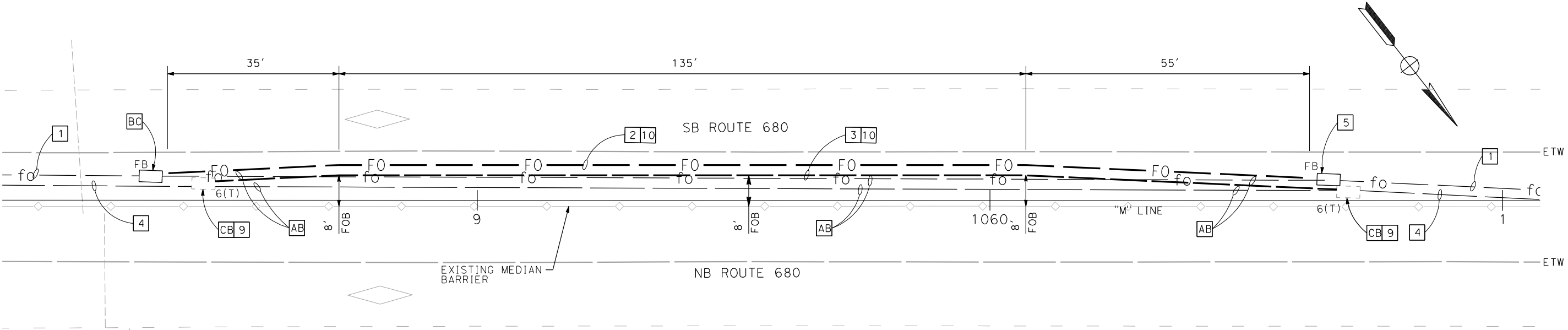
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THE ACCURACY OR COMPLETENESS OF SCANNED  
COPIES OF THIS PLAN SHEET.

URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE  
FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607



DETAIL 21  
"M" 1012+17 TO 1014+54  
(SEE SHEET E-73)



DETAIL 22  
"M" 1058+39 TO 1060+68  
(SEE SHEET E-77)

BACKHAUL COMMUNICATIONS

(CONDUIT RE-ROUTING DETAILS)

NO SCALE

EE-12

NOTES:

- 1.INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
- 2.BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEET EE-1

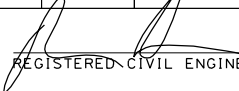
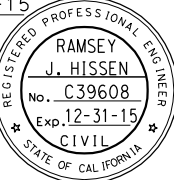
APPROVED FOR ELECTRICAL WORK ONLY

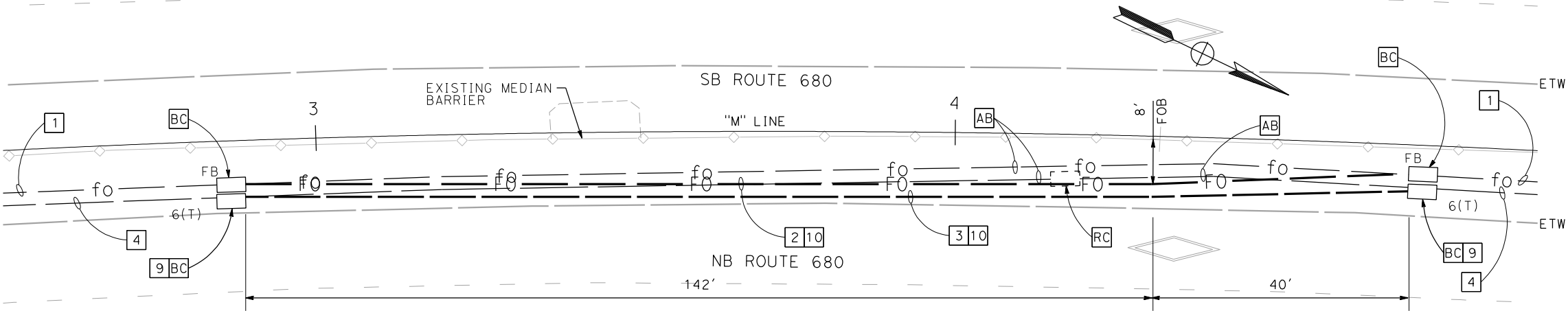


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY	JOEY PASKEY	REVISED BY	DATE REVISED
	RAMSEY HISSEN					

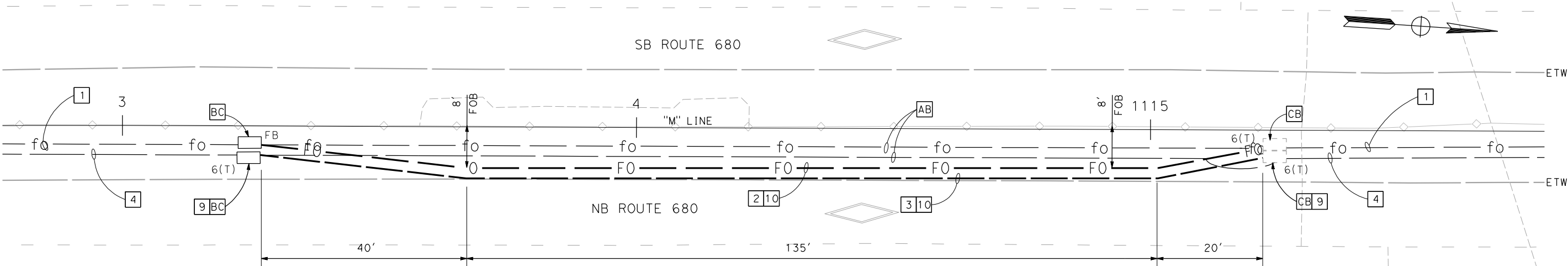
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REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Ala,CC	680	R20.1/R21.9, R0.0/14.0	566M	617
 <del>REGISTERED CIVIL ENGINEER</del>			5-13-15 DATE		
5-15-15					
PLANS APPROVAL DATE					
<p>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</p>					
URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH ST, 3rd Floor OAKLAND, CA 94607		



DETAIL 23  
"M" 1102+89 TO 1104+71  
(SEE SHEET E-80)



NOTES:

- 1.INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
- 2.BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEET EE-1

APPROVED FOR ELECTRICAL WORK ONLY

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

EE-13



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	JOEY PASKEY	REVISOR	DATE
ETG	RAMSEY HISSEN	CHECKED BY	KEVIN AGUIGUI	DATE	REVISOR

2 REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566N	617

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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URS CORPORATION  
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SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

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URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

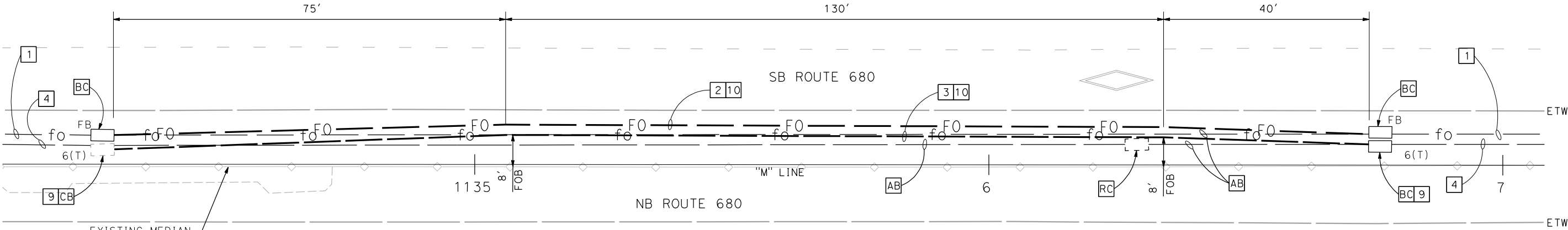
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REGISTERED CIVIL ENGINEER  
DATE

5-15-15  
PLANS APPROVAL DATE

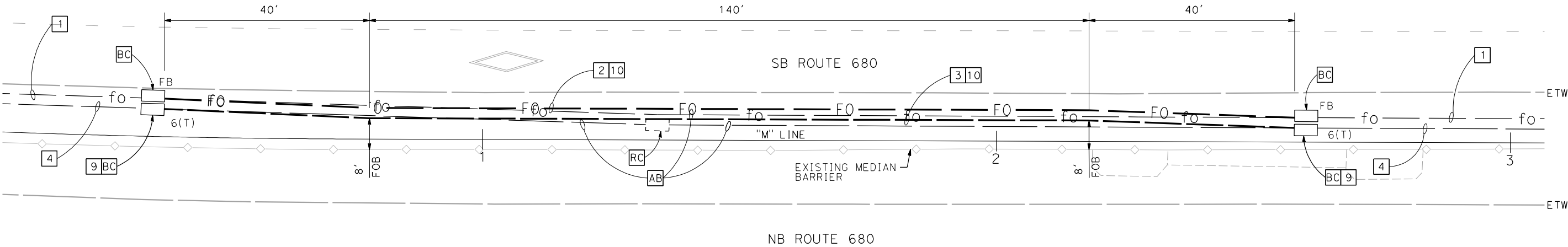
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607



DETAIL 25  
"M" 1134+30 TO 1136+74  
(SEE SHEET E-82)



DETAIL 26  
"M" 1160+38 TO 1162+58  
(SEE SHEET E-84)

NOTES:

- 1. INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
- 2. BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET EE-1

APPROVED FOR ELECTRICAL WORK ONLY

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

EE-14



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

EE-15

2

REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	5660	617

5-13-15  
REGISTERED CIVIL ENGINEER  
DATE

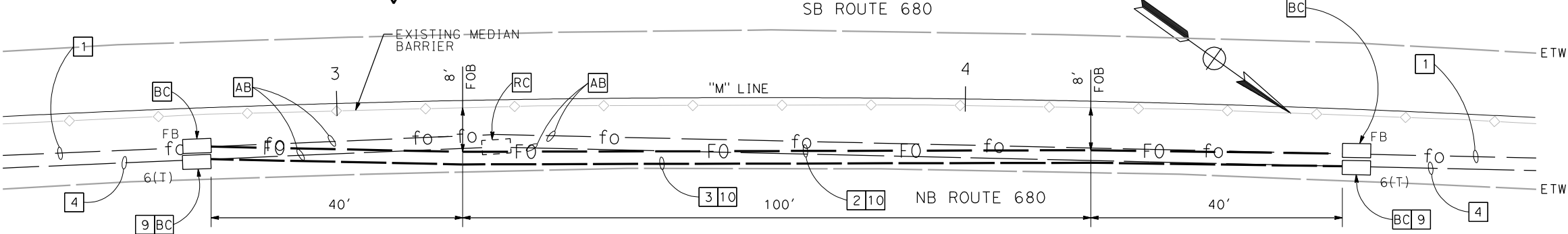
5-15-15  
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS  
OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
THE ACCURACY OR COMPLETENESS OF SCANNED  
COPIES OF THIS PLAN SHEET.

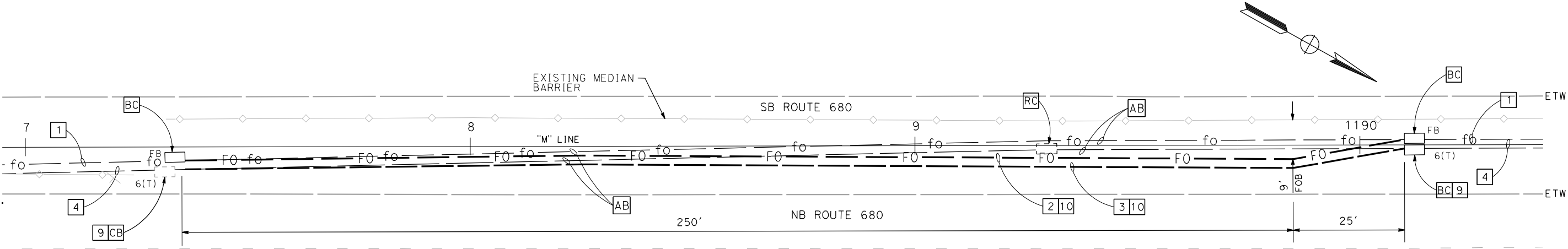
URS CORPORATION  
100 W. SAN FERNANDO St  
SUITE 200  
SAN JOSE, CA 95113-2254

BAY AREA INFRASTRUCTURE  
FINANCING AUTHORITY  
101 EIGHTH St, 3rd Floor  
OAKLAND, CA 94607

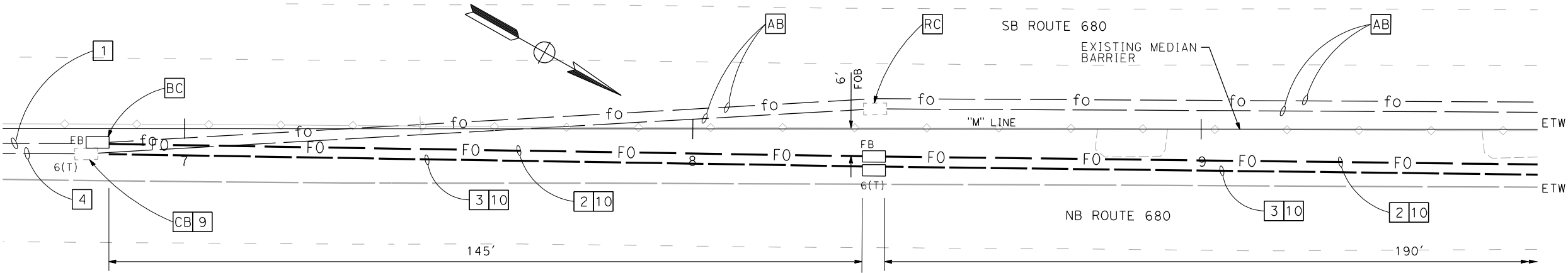
RAMSEY  
J. HISSEN  
No. C39608  
Exp. 12-31-15  
CIVIL  
STATE OF CALIFORNIA



DETAIL 27  
"M" 1172+80 TO 1174+60  
(SEE SHEET E-85)



DETAIL 28  
"M" 1187+36 TO 1190+10  
(SEE SHEET E-86)



NOTES:

- 1.INSTALL PULL BOXES IMMEDIATELY ADJACENT TO BARRIER.
- 2.BORE PITS SHALL BE USED AT LOCATIONS OF NEW PULL BOXES AND BACKFILLED AS SHOWN ON SHEET EE-17. WHEN CONTRACTOR CANNOT COMPLETE WORK WITHIN EVENING CLOSURE, BORE PITS SHALL BE BACKFILLED AS SHOWN ON SHEET EE-20.



FOR NOTES, ABBREVIATIONS AND  
LEGEND, SEE SHEET EE-1

DETAIL 29  
"M" 1206+85 TO 1209+66  
(SEE SHEETS E-88, E-89 AND EE-16)

BACKHAUL COMMUNICATIONS  
(CONDUIT RE-ROUTING DETAILS)

NO SCALE

EE-15

APPROVED FOR ELECTRICAL WORK ONLY



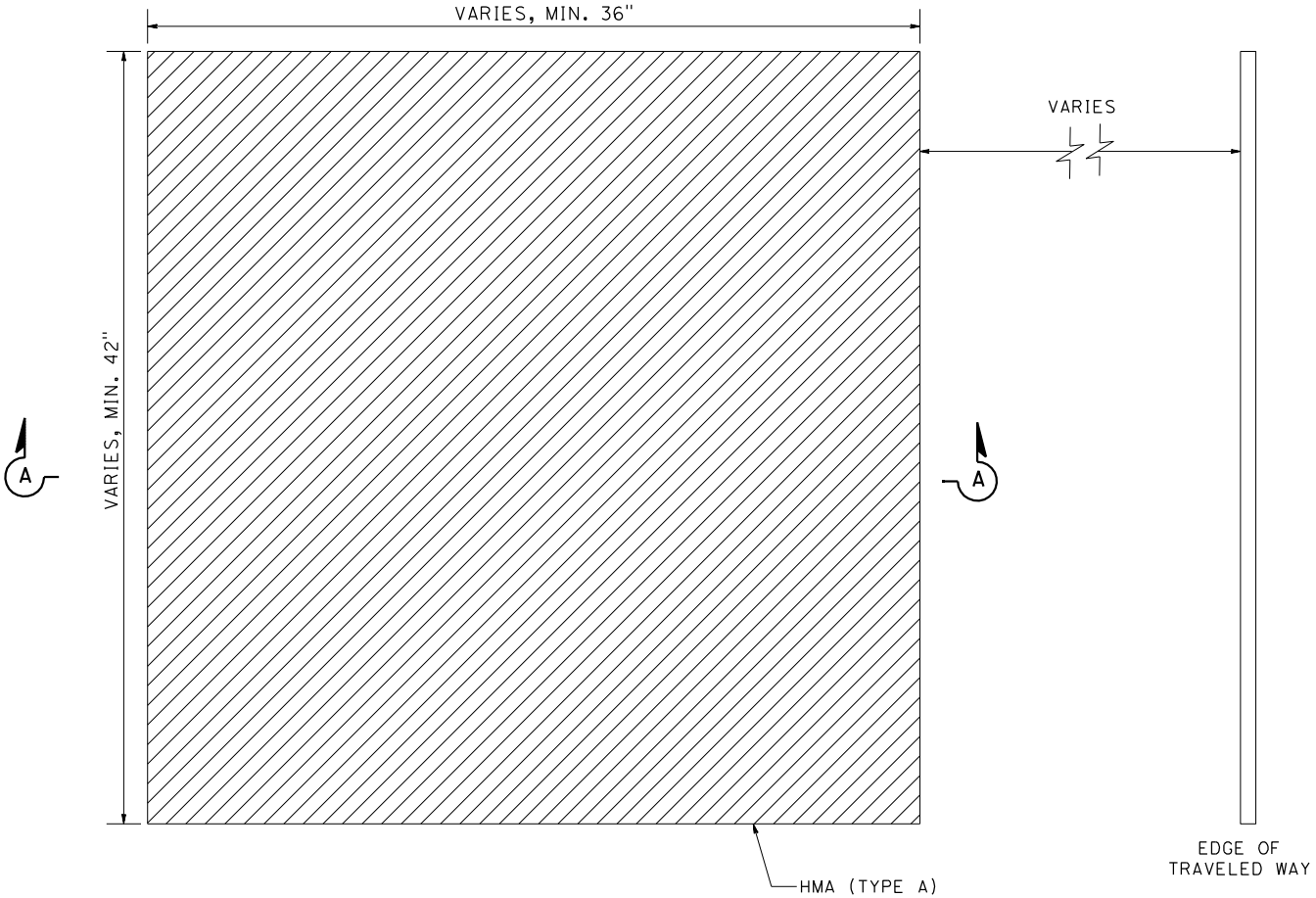
x						
		REVISED BY		DATE	REVISED	
		JOEY PASKEY		KEVIN AGUIGUI		
x		CALCULATED-DESIGNED BY		CHECKED BY		
x		CONSULTANT FUNCTIONAL SUPERVISOR				
x						
x		STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION				
x		EE-Giltrans®				

2

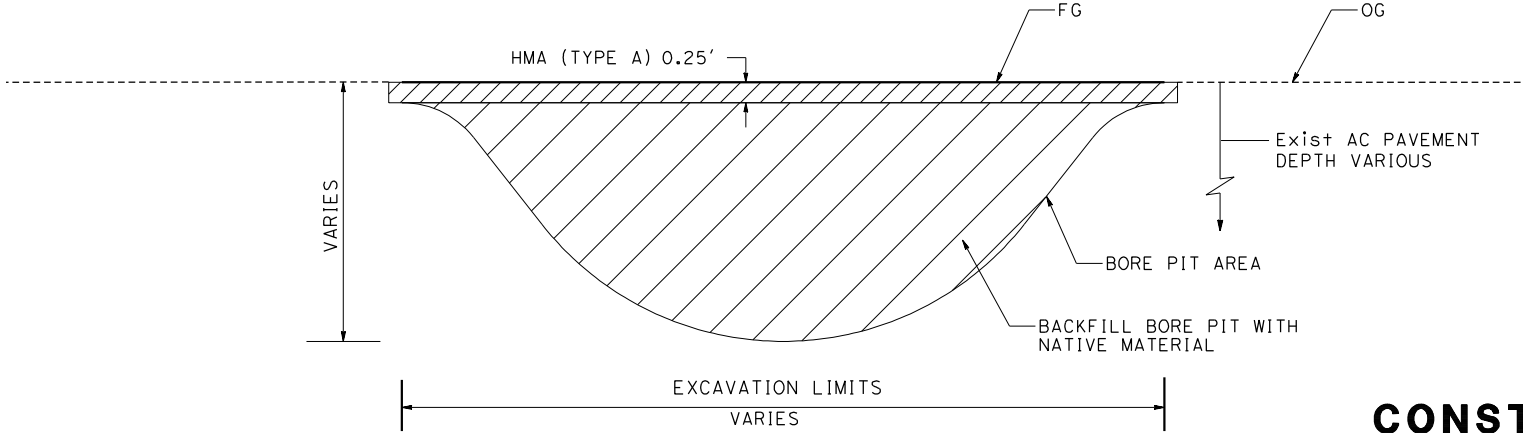
REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

NOTES:

1. BORE PITS SHALL ONLY BE USED AT LOCATIONS WHERE PULL BOXES OR FIBER SPLICE VAULTS ARE PROPOSED. ONCE ALL WORK HAS BEEN PROPERLY COMPLETED BACKFILL IN ACCORDANCE WITH DETAIL EE-17.
2. BORE PIT SHALL BE BACKFILLED IN ACCORDANCE WITH THIS DETAIL WHEN EXCAVATED LOCATIONS CANNOT BE PROPERLY COMPLETED WITHIN THE SAME DAY.
3. PAVEMENT SURFACE SHALL SIT FLUSH WITH THE SURFACE OF THE EXISTING PAVEMENT.
4. NATIVE SOIL USED AS BACKFILL MUST BE FREE OF LOOSE AND EXTRANEIOUS MATERIAL.
5. AGGREGATES MUST BE CLEAN AND FREE FROM DELETERIOUS SUBSTANCES.
6. COMPACT THE NATIVE SOIL AND HMA PAVEMENT TO 95 PERCENT RELATIVE COMPACTION. USE A PNEUMATIC TAMPER, PLATE COMPACTOR, OR EQUIVALENT TO ACHIEVE THOROUGH COMPACTION.
7. AGGREGATE GRADATION FOR HMA TYPE A SHALL BE ¾".
8. EXCAVATED MATERIAL SHALL BE PILED IN SUCH A MANNER THAT IT WILL NOT ENDANGER THE WORKERS, MOTORISTS, OR OBSTRUCT NATURAL WATERCOURSES.
9. PRIOR TO BACKFILLING BORE PIT, CONDUIT SHALL BE TEMPORARILY PLUGGED, CAPPED, OR OTHERWISE PROTECTED FROM THE ENTRANCE OF DUST, TRASH AND MOISTURE.
10. PAYMENT FOR EXCAVATION AND BACKFILL MATERIALS QUANTITY IS INCLUDED IN "BACKHAUL COMMUNICATIONS" WORK.



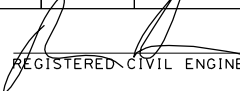
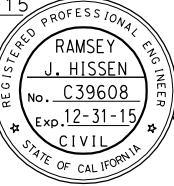
PLAN VIEW



SECTION A-A

CONSTRUCTION DETAIL  
(BORE PIT BACKFILL)

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566T	617
 REGISTERED CIVIL ENGINEER			5-13-15 DATE		
5-15-15					
PLANS APPROVAL DATE					
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH ST, 3rd Floor OAKLAND, CA 94607		



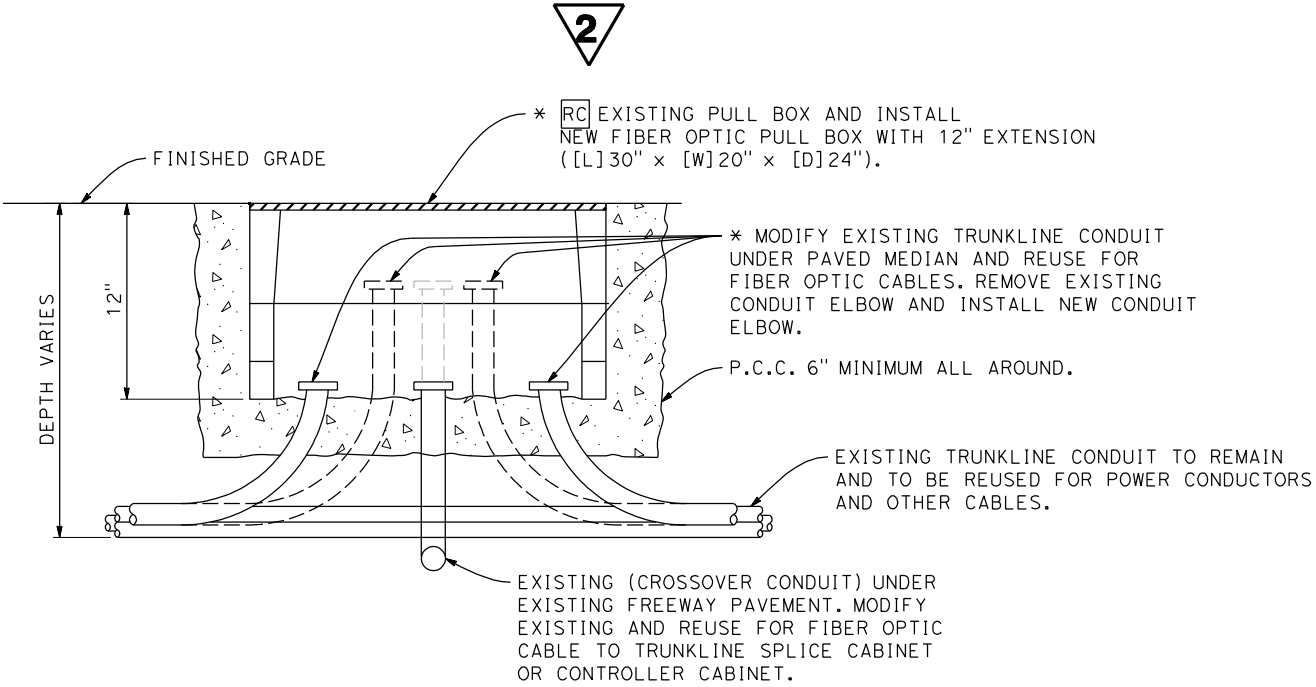


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	JOEY PASKEY	REVISOR	DATE
ET Caltrans	RAMSEY HISSEN					

2

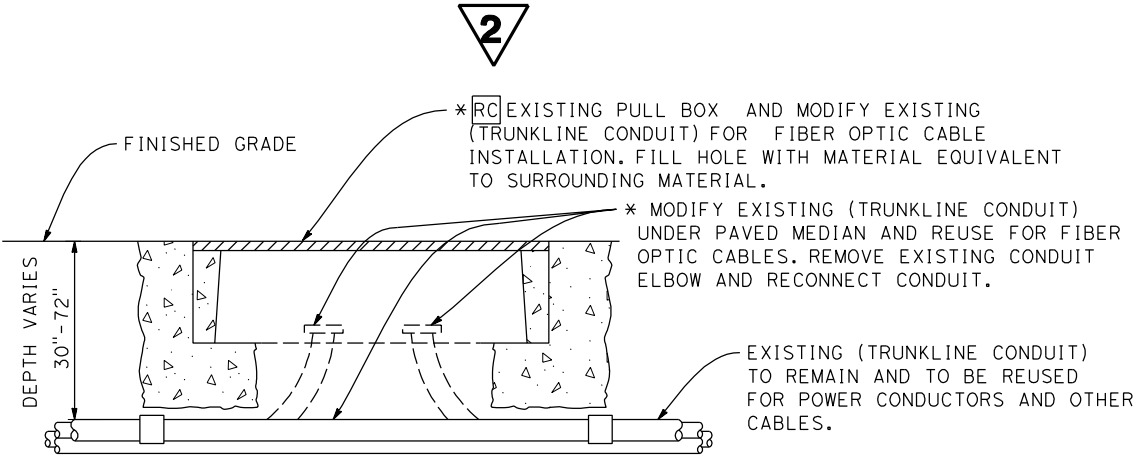
REVISED PER ADDENDUM No. 2 DATED JUNE 3, 2015

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
4	Alameda	680	R20.1/R21.9, R0.0/14.0	566U	617
REGISTERED CIVIL ENGINEER			5-13-15 DATE		
5-15-15 PLANS APPROVAL DATE			<div>RAMSEY J. HISSEN No. C39608 Exp. 12-31-15 CIVIL STATE OF CALIFORNIA</div>		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
URS CORPORATION 100 W. SAN FERNANDO St SUITE 200 SAN JOSE, CA 95113-2254			BAY AREA INFRASTRUCTURE FINANCING AUTHORITY 101 EIGHTH St, 3rd Floor OAKLAND, CA 94607		



\* DO NOT DAMAGE EXISTING TRUNKLINE CONDUIT RUNS. ALL EXISTING TRUNKLINE CONDUIT RUNS WERE INSTALLED IN THE SAME TRENCH UNDER MEDIAN PAVEMENT. MODIFIED CONDUIT SHALL HAVE A MINIMUM CONDUIT BENDING RADIUS OF 20"

DETAIL A  
TRUNKLINE TRAFFIC PULL BOX REPLACEMENT  
TRUNKLINE AND CROSSOVER CONDUIT MODIFICATION



\* DO NOT DAMAGE EXISTING TRUNKLINE CONDUIT RUNS. ALL EXISTING TRUNKLINE CONDUIT RUNS WERE INSTALLED IN THE SAME TRENCH UNDER MEDIAN PAVEMENT.

DETAIL B  
TRUNKLINE CONDUIT MODIFICATION  
TRUNKLINE PULL BOX REMOVAL

BACKHAUL COMMUNICATIONS  
(PULL BOX MODIFICATION)

NO SCALE

EE-21



## **APPENDIX D**

### **San Ramon Encroachment Permit Application**





CITY OF SAN RAMON

ENGINEERING  
SERVICES  
DEPARTMENT

2401 Crow Canyon Road  
San Ramon, CA 94583  
Inspection: 925-973-2692  
Phone: 925-973-2670  
Fax: 925-838-3937  
Engineering@sanramon.ca.gov

PERMIT NUMBER

VALID FROM

TO

Encroachment Permit

APPLICANT NAME:

☐ Homeowner

☐ Contractor

☐ Agent

PHONE

FAX

ADDRESS:

STATE CONTRACTOR'S LIC. NO.

CITY BUSINESS LIC. NO.

SITE CONTACT PERSON

PHONE

LOCATION(S) OF WORK:

START DATE

COMPLETION DATE

DESCRIPTION OF WORK ( PLEASE ATTACH SKETCH OR DRAWING WHEN APPLICABLE ):

\$

TOTAL ESTIMATED COST OF WORK

I HEREBY CERTIFY THAT ALL INFORMATION PROVIDED IN THIS APPLICATION IS TRUE AND COMPLETE AND I AGREE TO COMPLY WITH THE CONDITIONS LISTED BELOW AND ON THE FOLLOWING PAGES.

APPLICANT SIGNATURE

DATE

\*\*\* INSPECTOR MUST BE NOTIFIED AT LEAST 1- WORKING DAY PRIOR TO STARTING ANY WORK AND WHEN WORK IS COMPLETED BY CALLING THE CITY OF SAN RAMON ENCROACHMENT INSPECTION LINE AT (925) 973-2692. \*\*\*

\*\*\* WORK SHALL BE COMPLETED WITHIN THREE MONTHS OF APPROVAL UNLESS OTHERWISE NOTED. APPLICANT MUST APPLY FOR A PERMIT EXTENSION PRIOR TO THE EXPIRATION DATE. PERMIT SHALL BE KEPT ON SITE AND PRESENTED UPON DEMAND.\*\*\*

\*\*\* THE ENCROACHMENT PERMIT IS ISSUED IN ACCORDANCE WITH THE PROVISIONS OF DIVISION C6-4, CHAPTER 1 OF THE CITY OF SAN RAMON MUNICIPAL CODE. THE CITY RESERVES THE RIGHT TO SUSPEND OR CANCEL THIS PERMIT, WITHOUT ADVANCE NOTICE, IF THE PERMITTEE FAILS TO COMPLY WITH THE TERMS AND CONDITIONS OF THIS PERMIT. IN THE EVENT OF SUCH SUSPENSION OR CANCELLATION, THE PERMITTEE SHALL BE HELD LIABLE FOR ALL COSTS INCURRED BY THE CITY IN SECURING AND RESTORING RIGHT-OF-WAY.\*\*\*

SAN RAMON CITY USE ONLY

( DO NOT WRITE BELOW )

PRIOR TO COMMENCEMENT OF WORK, A PRECONSTRUCTION CONFERENCE OR SITE VISIT(S) IS REQUIRED

☐ YES

☐ NO

TRAFFIC CONTROL PLAN IS REQUIRED

☐ YES

☐ NO

TRAFFIC CONTROL PLAN SUBMITTED

☐ YES

☐ NO

TRAFFIC CONTROL PLAN APPROVED

☐ YES

☐ NO

SPECIAL CONDITIONS:

FEES

SURETY BOND AMOUNT

CASH BOND AMOUNT

DATE PAID

RECEIPT NUMBER

PERMIT APPROVAL

AUTHORIZED SIGNATURE

DATE

COMPLETION SIGNOFF

AUTHORIZED SIGNATURE

DATE

INSPECTION RECORD

DATE

COMMENTS

INSPECTOR

HOURS CHARGED

Page 1 of 3



**THE FOLLOWING CONDITIONS MUST BE COMPLIED WITH OR REVOCATION OF THIS PERMIT MAY OCCUR.**

1. Permit required: Division of Occupational Safety & Health Administration (OSHA) section 17922.5 (excavations over 5', building, demolition, structure, falsework or scaffolding over 3 stories, diesel engines in mines or tunnels).
2. **Liability for Damages:** Applicant will indemnify, hold harmless and assume defense of, in any actions of law or in equity, the City of San Ramon, its officers, employees, agents, officials and volunteers from all claims, losses, damages, and liability of every kind, nature and description for personal injury, including death, property damage or damage to business arising out of your work in performance of this permit by the Applicant or any of its contractors or subcontractors. This indemnification shall extend to claim losses, damage, injury and liability for injuries occurring after completion of permitted operations, as well as during the work's progress.
3. **Liability Insurance:** Applicant shall obtain at its sole cost and keep in full force and effect during the term of this permit, and for one year thereafter:
  - a. Commercial general liability insurance in a form and amount acceptable to the City, **naming the City of San Ramon, its officials, officers, directors, employees, agents, and volunteers as additional insured.** The general liability insurance must be primary with respect to the additional insured; any other insurance available to the additional insured shall be excess and noncontributing.
  - b. Automobile Liability Insurance, occurrence form, with a limit of not less than \$1 million each occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.
  - c. Workers Compensation in at least the minimum statutory limits.
  - d. Employers' liability insurance, with minimum limits of \$1 million per occurrence.
4. **Inspector must be notified at least 1 working day prior to starting any work and when work is completed by calling the City of San Ramon Encroachment Inspection Line at (925) 973-2692.**
5. All excavation requires prior notification of such activity. Applicant shall contact USA at 811 or (800) 227-2600 to verify underground utility locations. Failure to do so will result in revocation of this permit.
6. All work shall be in accordance with City of San Ramon Standard Details and Caltrans Standard Specifications unless otherwise noted SPECIAL CONDITIONS on page 1. (Standard Details are available for purchase at the Engineering Services Department, 2401 Crow Canyon Road, San Ramon, CA 94583; Engineering@sanramon.ca.gov).
7. All work within public roadways requires a minimum of signs, cones, and flaggers in conformance with the most recent Caltrans standards to conduct traffic safety around construction zones. NOTE: Driveway access to fronting and adjacent properties shall be provided at all times.
8. Additional conditions requiring an attachment shall be identified as "Exhibit A" and noted under SPECIAL CONDITIONS on page 1.
9. The granting of this permit does not relieve the applicant of the responsibilities of obtaining any other permit required by public or private agencies. (i.e. County, Army Corp., Department of Fish and Game, Caltrans, EBRPD, RWQCB, etc.)
10. See below for more standard requirements.

**I. GENERAL REQUIREMENTS**

- A. **JOB SITE CONDITIONS** - Permittee/Contractor agrees that (s) he shall assume sole and complete responsibility for the job site and conditions during the course of construction of this project, including safety of all person and property. Permittee/Contractor further agrees that this requirement shall apply continuously, 24 hours per day, and shall not be limited to normal working hours of 7:30 a.m. to 4:30 p.m.
- B. **PROTECTION** - Permittee/Contractor shall provide and maintain enough barricades, lights, signs, flaggers, and other safety measures to protect the public in conformance with the most recent State of California Manual of Traffic Control for Construction and Maintenance Work Zone.
- C. **TRAFFIC** - A City maintained road may not be closed to public traffic without the approval of the City Council. While working, keep one 10-foot wide lane open to traffic at all times. At all other times, two 12-foot wide lanes shall be open.
- D. **ACCESS** - Permittee/Contractor shall maintain existing driveway and pedestrian ingress/egress access for properties adjacent to the work at all times.
- E. **EROSION AND SEDIMENT CONTROL** - Permittee/Contractor shall comply with the requirements and best management practices as required by the State of California Regional Water Quality Control Board and the City's Stormwater (NPDES) permit. This includes protection of all catch basins within the vicinity of construction; maintenance of existing flow line and curb drainage.
- F. **UTILITIES AND IMPROVEMENTS** - Permittee/Contractor shall protect, in place, all existing utilities, and improvements unless specified otherwise in this Permit. The permittee/contractor shall be responsible for the replacement, repair, and restoration, at his/her sole expense, utilities, and/or improvements. This includes but is not limited to landscaping (including irrigation system components), fences, utilities, structures, conduits or improvements damaged or destroyed by the performance of the work permitted herein. Utility protection/relocation is the responsibility of the permittee. This would include but not be limited to the adjustment (lowering, raising and moving laterally) of the utility vaults and valve boxes as a result of any road reconstruction or other City Capital Improvement Projects.
- G. **PUBLIC RIGHTS-OF-WAY** - Permittee/Contractor shall keep all rights-of-way and off site areas clean from all dirt, mud, dust, debris and material stockpiles at all times. Any off-site damage to City streets, found by the City to be the result of this permitted work, shall be repaired by the permittee/contractor, at his/her sole expense, and to the satisfaction of the City of San Ramon.
- H. **MONUMENT PRESERVATION** - Permittee/Contractor shall not disturb any existing survey monuments within the City right-of-way. Monuments that are disturbed/removed shall be restored/replaced in accordance with provisions under Section 8771 of the State of California Business and Professional Code at no cost to the City.
- I. **CLOSING THE PERMIT** - The Permittee shall notify the City at least 1 working day, prior to completion of the authorized work under this permit by calling (925) 973-2692. Following such notification, the City will perform an inspection of the encroachment site to assure acceptability of the work and to verify restoration of the right-of-way. The City will continue to hold the Permittee responsible for maintenance of the encroachment, and will retain any security deposits, pending the signoff of the Permit by the City staff.



**II. STANDARD REQUIREMENTS - DRIVEWAYS** (STD Detail C-3 for Residential & STD Detail C-4 for Commercial)

- A. The driveway shall not enter a roadway within five feet of existing or planned curb returns; shall not interfere with a legal encroachment or create a hazard or nuisance and shall be spaced to make maximum street parking available.
- B. The driveway is to be sloped to prevent sheet flow from crossing the road and shall not interfere with drainage, cause erosion, or deposition of silt. The driveway shall be constructed from the edge of pavement to the property line.
- C. Minimum paved driveway construction shall consist of 2-1/2 inches of asphalt concrete pavement on six inches of Class II Aggregate Base within the road right-of-way. The entire portion of concrete driveways within the right-of-way shall consist of a minimum of six inches of Class A concrete over six inches of Class II Aggregate Base.
- D. Minimum concrete driveway construction shall consist of 6 inches of Class A concrete on six inches of Class II Aggregate Base.
- E. The top elevation of the driveway five feet behind the curb is to be 0.60 feet higher than the flow line of the gutter or as approved by the City Engineer.
- F. If an existing driveway depression is not used, it shall be completely removed (curb, gutter, and sidewalk) after making a saw cut at the nearest expansion joint or score mark and replaced with concrete to conform to adjacent improvements to be used at the gutter lip and the pavement restored with asphalt concrete. Replacement sidewalk and gutter shall be doweled (See STD Detail C-1).
- G. All broken curb, gutter, and sidewalk shall be completely removed by saw cut at the nearest expansion joint or score mark and replaced to true grade and cross section. The replacement curb, gutter and sidewalk shall be doweled (See STD Detail C-1).

**III. STANDARD REQUIREMENTS – HANDICAP RAMPS** (STD Detail C-5a & C5b)

- A. If Permittee/Contractor damaged, altered or replaced any element of an existing handicap ramp, the Permittee/Contractor shall be required to replace and bring the existing handicap ramp with the latest ADA compliance standard.

**IV. STANDARD REQUIREMENTS - STREET CUTS**

- A. **TRENCH EXCAVATION** - Do not start work until pipe and other materials are at the site. (Open up only that length of trench, which can be backfilled the same day.) Shoring shall comply with "Trench Construction Safety Orders" of the California State Industrial Accident Commission. Pavement shall be scored to neat lines and removal shall not cause damage to pavement outside the scored lines. Excess excavated material shall be removed immediately from the site.
- B. **CROSS TRENCH** - More than 10-degree angle with the centerline of road or any trench less than 50 feet long in the pavement or within four feet of paved area shall be backfilled with Class II Aggregate Base and the structural section replacement in the paved area.
- C. **LONGITUDINAL TRENCH** - Less than a 10-degree angle with the centerline of road or any trench less than 50 feet long in all paved areas including curbs, sidewalks or other concrete shall be backfilled with Class II Aggregate Base, from the top of pipe bedding to the bottom of the replacement structural section. The remaining trench shall be backfilled with the structural replacement in paved areas. In all other areas, longitudinal trenches may be backfilled from the pipe bedding to the ground surface with suitable material from the excavation or better material. Controlled density backfill may be used.
- D. **COMPACTION** - The relative compaction of all trench backfill up to 5.0' below the structural section subgrade shall not be less than 90 percent. The structural section shall be compacted to not less than 95 percent. No jetting allowed. Testing and results shall be required prior to paving.
- E. **TEMPORARY PAVING** - Temporary paving (or permanent paving) shall be placed at the end of each workday. Temporary pavement shall be Class A asphalt concrete with 1-1/2" minimum thickness and shall be replaced within four weeks with permanent pavement.
- F. **BASE AND PAVEMENT REPLACEMENT** - The roadway structural section shall be placed as stated in the permit. Otherwise, replacement shall be in kind except that the minimum replacement shall be the existing thickness of asphalt concrete or the minimum thickness per City STD Detail M-3.
- G. **TRAFFIC CONTROL DEVICES** - Unless otherwise specified, all traffic control devices and delineations removed by the permittee/contractor as part of the Permit shall be replaced in kind or better, at no cost to the City.
- H. **RECENTLY RESURFACED ROADWAY** - If the City has recently (within the last 3 years) resurfaced the roadway (slurry seal, overlay/inlay, etc) in which the Utility Agency is requesting trench work (including emergency repair work), then the Utility Agency will restore the roadway by slurry seal, pavement inlay/overlay, or pay "in-lieu" fees as directed by the City Engineer.

**V. STANDARD REQUIREMENTS - SIDEWALK DRAINS**

- A. Install a three-inch inside diameter smooth wall, Schedule 40 PVC pipe through the curb and sidewalk (See STD Detail SD-14). For retrofit, saw cut and remove one panel of sidewalk, curb, and gutter. Pipe flow line shall match gutter flow line and pipe shall be cut off flush with face of curb. Sidewalk concrete shall encase pipe in three-inch concrete jacket. Replace curb, gutter, sidewalk and pavement to match adjacent improvements (STD Detail C-1).
- B. Core boring to the curb is allowed at discretion of inspector. Any damage by core boring must be repaired by saw cut and removed as stated above (A) per STD Detail SD-14.

**VI. STANDARD REQUIREMENTS – DUMPSTERS AND PODS**

- A. Dumpsters and PODS placed on the street shall have a reflective device, placed in front and back that can be seen by oncoming traffic. Dumpsters and PODS shall not protrude into traveled way or bike lane.

**VII. STANDARD REQUIREMENTS - SWIMMING POOLS**

- A. Equipment shall not be left on street.
- B. Any blockage of driveway egress and materials stockpiles shall be removed at the end of workday.
- C. Inspection of egress areas shall be conducted before work begins and after work is completed. Damage to these areas shall be restored at the sole expense of the permittee/contractor.
- D. Undersidewalk Crossdrain per Section IV requirements to be installed if necessary. If the cross drain will be installed by a contractor other than the pool contractor, then a separate encroachment permit will be required.
- E. If subdrains or toe drains are encountered during excavation for the project, the applicant shall stop work, call Engineering Services @ (925) 973-2670, repair the subdrain, and/or modify the design of the wall so as not to interfere with the drain.
- F. Contractor shall call (925) 973-2692 for a final of the engineering permit prior to the sign off from the Building Department.



## **APPENDIX E**

### **Town of Danville Encroachment Permit Application**





# ENCROACHMENT PERMIT

ENGINEERING SERVICES



**ENCROACHMENT PERMIT TO DO WORK IN ACCORDANCE WITH THE ORDINANCE CODE OF THE TOWN OF DANVILLE AND ANY SPECIAL REQUIREMENTS SHOWN OR LISTED HEREIN.**

<b>APPLICANT / PERMITTEE:</b> _____ <b>Address:</b> _____ _____ <b>Phone:</b> _____	<b>Permit No.</b> _____ <b>Fee</b> _____ <b>Bond</b> _____
--	--

**PLEASE READ THIS PERMIT CAREFULLY. KEEP IT AT THE WORK SITE. TO ARRANGE FOR INSPECTION PHONE 925-314-3354, AT LEAST 48 HOURS BEFORE YOU START WORK.**

**DATE WORK IS TO BE COMPLETED BY** \_\_\_\_\_

(If the work is not completed by this date you must obtain a new permit unless an extension has been previously authorized)

**WORK LOCATION:**

**DESCRIPTION OF WORK:**

**SPECIAL REQUIREMENTS: (To be filled in by Permit Engineer)**

**SEE REVERSE SIDE OF PERMIT FOR STANDARD REQUIREMENTS**

<p>The permittee agrees to save, indemnify and hold harmless the Town of Danville or its representatives from all liabilities imposed by law by reason of injury to or death of any person or persons or damage to property which may arise out of the work covered by this permit and does agree to defend the Town in any claim or action asserting such liability.</p> <p>Accepting this permit or starting any work hereunder, shall constitute acceptance and agreement to all of the conditions and requirements of this permit and the ordinance and specifications authorizing issuance of such permit.</p>	
<b>Signature of Permittee</b>  <b>Signature:</b> _____  <b>Date:</b> _____	<b>Steven C. Lake</b> <b>City Engineer</b>
<b>Final Inspection</b>  <b>Signature:</b> _____  <b>Date:</b> _____	<b>Signature:</b> _____ <b>Permit Engineer</b>  <b>Date:</b> _____



**ENCROACHMENT PERMIT****I. GENERAL INSTRUCTIONS**

- A. WORK MUST BE INSPECTED** - Phone **925-314-3354** at least 48 hours before starting or resuming work. The inspector will answer questions regarding work related issues. Work without inspection may have to be removed or done over again.
- B. PROTECTION** - Provide and maintain enough barricades, lights, signs, flaggers and other safety measures to protect the public in conformance with the **State of California Manual of Traffic Controls For Construction and Maintenance Work Zones**.
- C. TRAFFIC** - A Town maintained road may not be closed to public traffic without the approval of the Town Council. While working, keep one 10-foot wide lane open to traffic; at other times, two 10-foot wide lanes shall be open.
- D. STANDARDS** - Work shall be in accordance with the Town Ordinance Specifications and Standard Drawings.
- E. UTILITIES** - Utility relocation is the responsibility of the permittee.
- F. UNDERGROUND SERVICE ALERT ( USA)** - Phone **1-800-227-2600** prior to excavating in road right of way.

**II. STANDARD REQUIREMENTS - DRIVEWAYS** - checked items apply

- A.** The driveway shall not enter a roadway within five feet of existing or planned curb returns; shall not interfere with a legal encroachment or create a hazard or nuisance and shall be spaced to make maximum street parking available.
- B.** The driveway is to be sloped to prevent sheet flow from crossing the road and shall not interfere with drainage, cause erosion or deposition of silt. The driveway shall be constructed from the edge of pavement to property line.
- C.** Minimum paved driveway construction shall consist of two inches of asphalt concrete pavement on six inches of Class II Aggregate Base within the road right of way. The entire portion of concrete driveways within the road right of way shall consist of a minimum of six inches of Class B concrete over three inches of Class II Aggregate Base.
- D.** The driveway elevation at the property line shall be within one foot of the elevation of the near shoulder and shall merge with the shoulder to preserve the roadbed section.
- E.** Shape a valley gutter across the driveway to match the flow line of the existing roadside ditch.
- F.** Install a culvert for full width of driveway. This culvert is to be laid to the flow line grade of the existing roadside ditch. Only galvanized corrugated steel, corrugated aluminum, reinforced concrete or approved plastic pipe may be used. Installation shall conform to the pipe fabricator's specifications for loading, cover and backfill requirements.
- G.** Minimum concrete driveway construction shall consist of 6" of Class B concrete on three inches of Class II Aggregate Base.
- H.** The top elevation of the driveway five feet behind the curb is to be 0.60 feet (7¼ inches) higher than the flow line of the gutter.
- I.** If an existing driveway depression is not used, it shall be completely removed (curb, gutter and sidewalk) after making a saw cut at the nearest expansion joint or scoremark and replaced with concrete to conform to adjacent improvements - form board to be used at the gutter lip and the pavement restored with asphalt concrete. Replacement sidewalk and gutter shall be doweled (See Std Plan 110).
- J.** All broken curb, gutter and sidewalk to be completely removed by saw cut at the nearest expansion joint or score mark and replaced to true grade and cross section. The replacement curb, gutter and sidewalk shall be doweled ( Std Plan 110).
- K.** The following template will be used to determine acceptable clearances. The template will be 18'-6" long and have two six-inch projections from its bottom plane, one located three feet and one five feet from an end. This template shall be used to control finish grades.

**III. STANDARD REQUIREMENTS - STREET CUTS**

- A. TRENCH EXCAVATION** - Do not start until pipe and other materials are at the site. Open up only that length of trench which can be backfilled the same day. Shoring shall comply with "Trench Construction Safety Orders" of the California State Industrial Accident Commission. Pavement shall be scored to neat lines and removal shall not cause damage to pavement outside the scored lines. Excess excavated material shall be removed immediately from the site.
- B. CROSS TRENCH** - more than 10 degree angle with the centerline of road or any trench **less than 50 feet long** in the pavement or within four feet of paved area shall be backfilled with Class II Aggregate Base and the structural section replacement in the paved area.
- C. LONGITUDINAL TRENCH** - less than 10 degree angle with the centerline of road and greater than 50 feet long in all paved areas including curbs, sidewalks or other concrete shall be backfilled with Class II Aggregate Subbase (or better material), from the top the top of pipe bedding to the bottom of the replacement structural section. The remaining trench shall be backfilled with the structural replacement in paved areas. In all other areas, longitudinal trenches may be backfilled from the pipe bedding to the ground surface with suitable material from the excavation or better material.
- D. COMPACTION** - The relative compaction of all trench backfill below the roadway structural sections shall not be less than 90 percent. The structural section shall be compacted to not less than 95 percent. No jetting is allowed under any paved roadway or within a distance of four feet from the edge of existing pavement. Backfill shall be compacted by impact, vibration or any combination of these. Jetting will be allowed only when more than four feet from the pavement and when the backfill and trench are suitable for jetting and shall be supplemented with mechanical compaction in four foot maximum layers.
- E. TEMPORARY PAVING** - Temporary paving (or permanent paving) shall be placed at the end of each work day. Temporary pavement shall be 1½ inch minimum thickness and shall be replaced within four weeks with permanent pavement.
- F. BASE AND PAVEMENT REPLACEMENT** - The roadway structural section shall be replaced as stated in the permit. Otherwise, replacement shall be in kind except that the minimum replacement shall be two inches of asphalt concrete and 16 inches of Class II Aggregate Base.

**IV. STANDARD REQUIREMENTS - SIDEWALK DRAINS**

- A.** Install a three inch inside diameter smooth wall, non-corrosive pipe through the curb and sidewalk ( see Std Plan 109). For retrofit, saw cut and remove one panel of sidewalk and 1-foot of curb only (do not remove gutter). Pipe flow line shall match gutter flow line and pipe shall be cut off flush with face of curb. Sidewalk concrete shall encase pipe in three-inch concrete jacket. Replace curb, gutter, sidewalk and pavement to match adjacent improvements (Std Plan 110).



## **APPENDIX F**

### **Contra Costa County Encroachment Permit Application**





# Contra Costa County Public Works Department

## APPLICATION AND PERMIT CENTER

Permit No.: \_\_\_\_\_  
Road No.: \_\_\_\_\_  
Area: \_\_\_\_\_  
TBM: \_\_\_\_\_  
USA No.: \_\_\_\_\_  
Fed Tax ID No.: \_\_\_\_\_

Work Order/Job # \_\_\_\_\_

## ENCROACHMENT PERMIT

Rev 5/7/14

Type of Encroachment Permit: ☐ Small ☐ Large ☐ Utility For Office Use Only County Project/W.O. \_\_\_\_\_ Permit Violation ☐  
Permit Fee \$ \_\_\_\_\_ Inspection Fee \$ \_\_\_\_\_ Cash Bond \$ \_\_\_\_\_ Receipt No.: G- \_\_\_\_\_

Permit to do work in accordance with Title 10 of the Ordinance Code of Contra Costa County, County Standard Plans and Specifications, and any Special Requirements shown or listed herein. **Read both sides of this Permit and all the attachments carefully. Keep this Permit at the work site.**

Permittee: \_\_\_\_\_ Contractor: \_\_\_\_\_  
Address: \_\_\_\_\_ Address: \_\_\_\_\_ Contractors License # \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Telephone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_  
Email Address: \_\_\_\_\_ Cell Phone No.: \_\_\_\_\_

**Expiration Date:** All work described in this permit, including finish paving, shall be completed on \_\_\_\_\_.  
If all work covered by this permit, including finish paving is not completed by this date, you must acquire a new permit.

**Permitted Activity:** \_\_\_\_\_ **Excavate Curb, Gutter, Sidewalk\*** ☐ Yes ☐ No **Excavate AC Pavement\*** ☐ Yes ☐ No

**Emergency Contact Person:** \_\_\_\_\_ **Telephone No.:** \_\_\_\_\_  
\*Excavation Permits Require An Emergency Contact Available 24/7. **PERMITS FOR EXCAVATION REQUIRE A CURRENT USA NUMBER.**

**Start Date:** \_\_\_\_\_ **Projected Completion Date:** \_\_\_\_\_  
\*Permit applications with more than 30 calendar days between the start and completion date must be accompanied by a detailed construction schedule

**Site Address:** \_\_\_\_\_ **APN:** \_\_\_\_\_

### General Permit Conditions:

- ALL WORK MUST BE INSPECTED.** ARRANGE for an **INSPECTION** by phoning \_\_\_\_\_ or email \_\_\_\_\_ **@pw.cccounty.us** at least two working days before you begin work. If you can not reach the inspector contact the construction office at (925) 313-2320. **WORK DONE WITHOUT NOTIFICATION IS SUBJECT TO REJECTION AND/OR A PENALTY OF \$100.**
- You must schedule a **FINAL INSPECTION** by phoning your inspector. **Refunds of deposits and/or bonds** will be processed **90 days** from the date the permit was signed off by the Public Works Construction Inspector. A signed off permit from another permitting agency or utility company does not guarantee the work performed under this permit has been completed satisfactorily.
- Standard Road Encroachment Permit Conditions; Sections I, II, III, and IV** on the back of this permit apply. **READ CAREFULLY.**

Items Attached or Referred to Herein and Made Part Hereof:

☐ General Permit Conditions Attachment \_\_\_\_\_; ☐ Special Road Encroachment Permit Conditions; ☐ Preserving Survey Monumentation;

The Permittee agrees to save, indemnify and hold harmless the County of Contra Costa, its officers, employees and agents from all liabilities imposed by law by reason of injury to or death of any person(s) or damage to property, including without limitation liability for trespass, nuisance or inverse condemnation, which may arise out of the work covered by this permit and does agree to defend the County, its officers, employees and agents against any claim or action asserting such a liability. Accepting this permit or starting any work hereunder shall constitute acceptance and agreement to all of the conditions and requirements of this permit and the ordinance and specifications authorizing issuance of such permit.

**Signature of Permittee:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_

By: \_\_\_\_\_ Date: \_\_\_\_\_

Robert B. Hendry III, Senior Engineering Technician

For: Julia R. Bueren, Public Works Director, Contra Costa County

☐ Work Completed  
☐ Expired  
☐ APPLY PENALTY – No Inspection Requested

Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

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## STANDARD ROAD ENCROACHMENT PERMIT CONDITIONS

### I. GENERAL INSTRUCTIONS

1. **WORK MUST BE INSPECTED** - Work done without inspection may have to be removed and be reconstructed.
2. **PROTECTION** - Provide and maintain enough barricades, lights, signs, cones, flaggers and other safety measures to protect the public, in accordance with the current California Manual on Uniform Traffic Control Devices.
3. **TRAFFIC** - A County road may not be closed to public traffic without the approval of the Board of Supervisors. Unless noted otherwise in attached General or Special Road Encroachment Permit Conditions, keep a minimum of one 10' wide traffic lane open to traffic while working; at all other times, two 10' wide lanes shall be open.
4. **STANDARDS** - Work shall be in accordance with the latest edition of Caltrans Standard Specifications and Plans and County Standard Specifications and Plans.
5. **UTILITIES** - Utility relocations are the responsibility of the permittee.
6. **UNDERGROUND SERVICE ALERT (USA)** - Must be contacted prior to excavating in a County road right of way. Telephone 811. Any work found in progress without a valid USA number will be shut down and the roadway cleared. All USA and/or temporary survey pavement markings shall be removed by the permittee at the completion of work to the satisfaction of the County Public Works construction inspector.
7. **SURVEY MONUMENTS SHALL BE PROTECTED.** Any survey monuments removed, or disturbed, shall be replaced using surveying practices acceptable to the County Surveyor, who can be contacted at (925) 313-2343.
8. **FIELD CHANGES** - Any modification due to field conditions must be approved by the inspector.
9. **IF WORK** is performed **without a permit**, the fee shall be **double** the amount per fee schedule or a **minimum** of \$300. All work performed *without* a permit is subject to removal and/or reinstallation.
10. **STAFF CHARGES** - Permittee is responsible for all staff charges associated with the permit. Any exceptions must be resolved before the permit is issued. Permits will not be signed off as complete until all the review and inspection charges are paid in full.

### II. SPECIAL REQUIREMENTS - DRIVEWAYS (DRIVEWAY SHALL BE CONSTRUCTED FROM EDGE OF PAVEMENT TO PROPERTY LINE)

1. Minimum driveway construction shall consist of 2" of asphalt pavement on 6" of Class 2 Aggregate Base. Concrete driveways within the County road right of way shall consist of a minimum of 6" of Class 3 concrete over 3" of Class 2 Aggregate Base. The driveway is to be sloped to prevent storm water runoff to flow onto the County road and shall not interfere with roadside drainage or cause erosion or deposition of silt.
2. The driveway location shall comply with County Standard Plan No. CA70, shall not interfere with a legal encroachment or create a hazard or nuisance, and shall be spaced to make maximum street parking available.
- 3a. The top elevation of driveway 5' behind curb is to be .60' or 7 1/4" higher than the flow line of the gutter.
- 3b. The driveway elevation at the property line shall be within 1' of the elevation of the near shoulder and shall merge with the shoulder to preserve the roaded section.
4. If existing driveway depression is not used, it shall be completely removed (curb, gutter and sidewalk) by saw cut at next nearest expansion joint or score mark and replaced with concrete to conform to adjacent improvements - form board to be used at gutter lip and the pavement restored with asphalt concrete. Sidewalk and curb which is replaced shall be doweled. (See County Standard Plan No. CA 74)
5. Existing curb and gutter, or curb, gutter and sidewalk shall be removed for full width of driveway with saw cut at next nearest expansion joint or score mark. (See County Standard Plan No. CA 70) A form board must be used at the gutter lip and the pavement restored with asphalt concrete. The new sidewalk and curb shall be doweled. (See County Standard Plan No. CA 74)
- 6a. Where driveways connect to County roads without curbs, shape a valley gutter across the driveway. The flow line shall match the flow line of existing roadside ditch.
- 6b. Install a culvert for full width of driveway. This culvert is to be laid to the flow line grade of existing roadside ditch. The minimum culvert diameter is 18".
7. Driveway grade breaks shall comply with County Standards (See County Standard Plan No. CA 20)
8. All broken curbs, gutters and sidewalks shall be completely removed by saw cut at nearest expansion joint or score mark and replaced to true grade and cross-section. The new curb and sidewalk shall be doweled. (See County Standard Plan No. CA 74)

### III. SPECIAL REQUIREMENTS - STREET CUTS (See County Standard Specifications for Detailed Requirements).

1. **TRENCH EXCAVATION** - Trench excavation and backfill requirements shall follow County Standard Plan No. CU01. Prior to the start of the work covered under this encroachment permit:
  - a. Any deviation proposed from the backfill material or asphalt concrete specified on the Standard Plan shall be approved by the Public Works Department's construction inspector.
  - b. Any deviation proposed from the trench excavation specified on the Standard Plan shall be approved by the Public Works Department's construction inspector.
2. The Permittee shall not excavate trenches in advance of pipe placement. No more trench shall be excavated than can be finished, including pipe placement, backfill and temporary paving on the same day. Shoring shall comply with current CAL-OSHA safety orders.
3. For trench backfill in other road right-of-way areas, the trench backfill shall consist of existing material or suitable backfill material as approved by the inspector. The trench backfill shall have a minimum relative compaction of 90 percent.

**No jetting is allowed under any paved roadway or within a distance of 4' from the edge of existing pavement.** Backfill shall be compacted by impact, vibration or any combination of these. Jetting will be allowed only when more than four feet from the pavement and when the backfill and trench are suitable for jetting and shall be supplemented with mechanical compaction to obtain required relative compaction.

4. **TEMPORARY PAVING** - Temporary paving (or permanent paving) shall be placed at the end of each work day and shall have a minimum thickness of 1.5" of 1/2-inch, Type A asphalt concrete. The permittee shall maintain the temporary trench paving until the permanent paving is performed.

### IV. SPECIAL REQUIREMENTS - SIDEWALK DRAINS

1. Install a 3" inside diameter non-corrosive pipe through curb or through curb and sidewalk. One panel of sidewalk, curb and gutter, or where there is no sidewalk, 1' of curb only (don't remove gutter) to be removed by a saw cut. Pipe flow line shall match gutter flow line, and pipe shall be cut off flush with face of curb. Sidewalk concrete shall encase pipe in 3" concrete jacket. Replace curb, gutter, sidewalk and pavement to match adjacent improvements. (See County Standard Plan No. CD06)



**INVITATION FOR BID (IFB)  
FOR I680 SOUTH EXPRESS LANES PROJECT IN ALAMEDA AND CONTRA COSTA  
COUNTIES ON ROUTE 680 PM R20.1/21.9, R0.0/14.0,  
DATED APRIL 28, 2015 AS AMENDED MAY 19, 2015**

**QUESTIONS RECEIVED FROM BIDDERS' CONFERENCE HELD ON MAY 20, 2015  
AND OTHER QUESTIONS SUBMITTED**

**Q1: What is the engineer's estimate for this project?**

A1: The original engineer's estimate for the project was fifteen million two hundred thousand dollars (\$15,200,000) however the estimate was increased by one million two hundred thousand dollars (\$1,200,000) to sixteen million four hundred thousand dollars (\$16,400,000) with the changes in Addendum #1 dated May 19, 2015.

**Q2: Are there any Disadvantaged Business Enterprise (DBE) goals or other Small Business Enterprise (SBE) goals associated with this procurement?**

A2: No, however BAIFA is committed to the participation of DBEs and SBEs in MTC contracting opportunities. BAIFA encourages Prime Contractors to utilize DBE and SBE subcontractors. And, DBE and SBE firms are encouraged to submit proposals in response to BAIFA procurements.

**Q3: Minimum Insurance Requirements:**

- 1) Are the minimum insurance requirements for specialty or general contractors?
- 2) While most general contractors will be able to meet the umbrella insurance requirement, almost zero subcontractors will be able to meet this requirement. This policy either needs to be lowered or changed to only apply to general contractors.
- 3) E & O Insurance is not typically required in Civil Construction projects, can this requirement be removed?
- 4) Please clarify the difference between "Representative Name and Title" and "Name of Authorizing Official" on IFB Part 5, Bid Forms, Bid Form #7, Insurance Certificate Checklist on page 57 and IFB Part 6, Special Conditions, SC-2, Insurance on pages 62 - 66.

A3: 1) See IFB Part 6, Special Conditions, SC-2.1, Minimum Insurance Requirements, first sentence in paragraph #1, page 62.  
2) See IFB Part 6, Special Conditions, SC-2.1, Minimum Insurance Requirements, first sentence in paragraph #2, page 63.  
3) Yes, See Addendum #2, Item #5 & Item #6.  
4) "Representative Name and Title" and "Name of Authorizing Official" may be the same individual or may be two different individuals within the Bidder organization. The Project Manager within a Bid might not be the individual authorized to sign the Contract documents.

**Q4: Does BAIFA expect to make any changes to the dates found in IFB Part 1, Notice to Bidders, Bidder Selection Timetable? Can the Bid Deadline be extended two weeks?**



A4: See Addendum #2, Item #1 and Item #2.

**Q5: Since you are using the 2010 Caltrans Specifications, will dispute resolution be conducted as a Dispute Resolution Board, or does it go to BAIFA?**

A5: See IFB Part 7, General Conditions, GC-68, Potential Claims and Dispute Resolution, page 124.

**Q6: Can you explain the funding and what sources they are from?**

A6: All project funding is local; the source is Bay Area Toll Authority Express Lane funds.

**Q7: The IFB documents indicate that this project has a 300 working day duration however the table located in IFB Part 10, Construction Details, on page 136 provides that the Toll System Integrator (TSI) installation and department-arranged time for the relocation is a total of 360 working days (120 x 3). Please clarify.**

A7: The table located on page 136 of IFB Part 10, Construction Details, defines the time needed by the TSI contractor to do its installation and testing once the Civil contractor is finished in each of these three locations. The 120 working days for each location described in the table can be concurrent.

**Q8: What is the method of payment for edgedrain outlets? Please provide a detail and/or additional information for the edgedrain removal. Once the edgedrain is removed, what material(s) will be required to fill the void?**

A8: There is no edge drain outlet in the contract plans. For edge drain and cleanout details, please see Caltrans 2010 Standard Plan D99C. For backfill materials, see Appendix A, Contract Drawings / Plans, sheet 111 of 617, Drainage Details DD-3.

**Q9: What is the method of payment for underdrain outlets? Please provide a detail and/or additional information for the underdrain removal. Once the underdrain is removed, what material(s) will be required to fill the void?**

A9: There is no underdrain outlet in the contract plans. For backfill materials, underdrain and cleanout details, please see Appendix A, Contract Drawings / Plans, sheet 111 of 617, Drainage Details DD-3.

**Q10: When completing IFB Part 5, Bid Forms, Bid Form #5, Designation of Subcontractors, are bidders required to include portion of work and bid items or portion of work or bid items (both or one or the other)? If bid items are required, are bidders also required to list the percentage of work by bid item? The subcontractor listing form does not include a column for percentage of bid item.**

A10: IFB Part 5, Bid Forms, Bid Form #3 requires Bidder to provide both the portion of work and bid items for each proposed subcontract in the space provided. Bidder is not required to list the portion of work by bid item, only total portion of work for each proposed subcontract.

**Q11: Per IFB Documents this project has a duration of 300 days however Civil work is schedule to be completed by day 169. 1) As the general contractor, what work are we responsible for between working day 169 and day 300? 2) Why is this contract 300**



**working days? 3) Should the “K” rail be left in place between day 169 and day 300 or move it out after 169 days are over?**

- A11: 1) The Civil Contractor is responsible for maintaining the improvements constructed as part of the Contract from working day 1 through Contract completion.  
2) Between day 169 and day 289, the Civil Contractor is waiting for the TSI contractor to finish its installation work and testing. Once the TSI contractor is finished with this work the Civil Contractor will need to finish the Civil Contract work required (barrier mounted signs, striping, uncovering overhead signs, etc.) to open the Express Lane.  
3) “K” rail must be removed by or before day 169.

**Q12: If the TSI can come on site within 169 days, will the sections the TSI works on be accepted by BAIFA before control is turned over?**

- A12: See IFB, Part 10, Construction Details, Division II General Construction, Section 10 General, page 139 -140 for a detailed protocol for turning over Civil improvements to the TSI contractor.

**Q13: What is the contractor’s responsibility for maintenance during construction? Is the contractor required to assume all of Caltrans maintenance duties?**

- A13: The Civil Contractor is responsible for maintaining the improvements constructed as part of the Contract from working day 1 through Contract completion.

**Q14: How does one complete construction of the Temporary Terminal Section (Type K) the same night that the k-rail is set? If the lanes are opened to traffic in the morning and this piece is not complete, there will be a blunt end exposed to traffic.**

- A14: Per Caltrans Standard Plan – T5, Installation of the Temporary Terminal Section (Type K) will be required on the first night of “K” rail installation. No blunt ends will be allowed once night time traffic control is removed.

**Q15: Does the requirement that the general contractor do at least 30% of the work apply to this contract? Are the 30% specialty items going to be designated? Is there a limit to how much a prime contractor can do? Can it do 0%?**

- A15: See Addendum #2, Item #12. IFB, Part 10, Construction Details, Section 5, Control of Work has been revised. The Prime Contractor will be required to do 15% of the value of the original total bid.

**Q16: Is there a bid item for the slope paving at Sta. 902+00?**

- A16: See Addendum #2, Item #15, Project Plan Sheet #460.. The quantity of concrete slope paving is added to minor concrete (miscellaneous construction).

**Q17: Please provide roadway elevation information along each side the new median barrier. This information is necessary to determine the offsets of the new and existing barriers. Where can we find the roadway offsets (difference between finish grades on the right side and the left side) of the existing concrete barriers which are being replaced on this project? This offset can vary by as much as 36” and an accurate value for each location is needed to accurately calculate:**



1. **The volume of concrete and rebar to be removed in the existing barrier,**
2. **The volume of structure excavation and backfill,**
3. **The volume of concrete in the new barriers,**
4. **The quantity of reinforcing steel in the new barriers,**
5. **The height of the galvanized steel plates in the new Type 60R barriers,**
6. **The volume of fill between the walls of the new Type 60GE and Type 60R barriers.**

**All these factors play a role in being able to accurately estimate the cost of this work. Please provide this necessary information.**

A17: IFB Appendix A, Contract Drawings and Plans provide project Layout Sheets, Construction Details, and Summary of Quantities sheets provide sufficient information to calculate and estimate the cost for items mentioned above. An information handout for stations, offsets, elevations of median concrete barrier is provided as a supplemental document to help the contractor to determine the quantities faster and easier.

**Q18: Can you check the quantity for Bid Item #50? It seems that no matter the depth of the inlet, the quantity is the same.**

A18: See Addendum #2, Item #4, the quantity for bid item #50 is revised.

**Q19: Will there be any staging provided? Is there an area within the right-of-way that we can use as a laydown or yard?**

A19: No staging area will be provided. No area within the right-of-way will be provided for a construction yard.

**Q20: Has the BAIFA started the permit process with PG&E? What is the current status of the permit process? Who is responsible for the schedule risk associated with PG&E during design, application and construction? Does BAIFA have PG&E commitment plans and PM number assigned by PG&E for ALL electrical service locations? Are all PG&E related delays paid for by BAIFA?**

A20: See IFB Appendix A, Contract Drawings and Plans, Project sheets 462 through 566 for "E" sheets for the work required by the Civil Contractor. Civil Contractor must coordinate with PG&E for inspection of conduit into their facilities (underground box or pole). BAIFA has worked with PG&E and will provide service agreements and PG&E plan sheets for all 26 service locations for the I-680 Express Lane Project, 2 locations are outside the project limits and not part of this contract. BAIFA to provide updates on PG & E service agreements as available.

**Q21: The work in median added under Addendum #1 requires additional K-rail to accommodate safe construction of the Backhaul Communication intercept work. Please revise Stage Construction Traffic Handling plans to extend K-rail to protect construction operations for this added work OR revise the Backhaul Communication intercept locations to within the K-rail limits as shown on current plans.**

A21: See IFB Addendum No. 1, dated May 19, 2015, for plan sheet EE-20 which shows steel plates to cover bore pit area as needed during construction of the conduit relocation and



pull box installation. The Backhaul Communication intercept work beyond the k-rail limits outlined in the Contract Documents could be completed using nightly lane closures.

**Q22: The working day milestones are too aggressive; request that the milestones for each Location be increased by 60 working days.**

A22: Request denied. Milestone dates will stay as they are specified in the IFB, Part 10, Construction Details, Section 8, Prosecution and Progress under the heading “Add to section 8-1.10B:”, Page 137 & 138.

**Q23: The allowed Owner review time for submittals will prevent Contractor from achieving schedule milestones. Please revise Owner review time for submittals to 10 working days.**

A23: Request denied. IFB Part 6, Special Conditions, SC-6.5, Time for Submittal, page 68 will not be changed.

**Q24: IFB Addendum No. 1, dated May 19, 2015, directs the contractor to cut the existing fiber cable and only install a pull tape in the re-routed conduits. Bid documents do not disclose what systems the existing fiber is servicing. Is there Fiber Optic line in the existing conduit in the median? If yes, is it active and does it need to remain operational during construction?**

A24: The fiber will be disconnected prior to the start of work by the Civil Contractor and does not need to remain in service.

**Q25: Please review installation requirements of the VTMS LED panels to be installed on the overhead sign panels as specified in section 10-1.03 of the special provisions as they are not achievable. Because of the size of the completed sign panels, each sign panel will be made up of six individual laminated panels. Each individual laminated panel is attached to mounting beams only after the beams are bolted to the sign structure truss. All of this needs to be completed prior to the installation of the VTMS LED panels in order to insure the LED panels, conduit and junction boxes do not conflict with the mounting of the sign panel to the mounting beams. Additionally, the size of the completed sign panel on the truss will prohibit transporting it from a warehouse to the jobsite, thus the installation of the sign panels and VTMS LED panels must take place on the jobsite at each individual sign location. Please confirm.**

A25: See Addendum #2, Item #13. IFB Part 10, Construction Details, Division II, General Construction, 10 General which states that a warehouse needs to be provided for the TSI contractor to install the VTMS LED bricks, fitting on the ground is necessary. The VTMS sign panels, prior to attaching them to the mounting beams bolted to the sign structure, must be made available to the TSI before you install the whole assembly over the roadway in a secure warehouse environment located no more than 20 miles from the project site. The size of the warehouse shall not be less than 5,000 sf.

**Q26: Reference is made to Section 10-1.03 of the RSS for Section 10-1 which states that the VTMS sign panels must be made available to the TSI before you install the whole assembly over the roadway in a secure warehouse environment located no more than 10 miles from the project site. Request is hereby made that the distance to secure**



**warehouse be increased from 10 miles to 20 miles from the project site. Please confirm.**

A26: See Addendum #2 Item #13 which revises the distance limit for a secure warehouse environment from 10 miles to 20 miles.

**Q27: Does the I-680 Express Lanes Project in Alameda County and Contra Costa counties require concrete pavers and will BAIFA purchase those through a supplier or will the winning Bidder be required to purchase all materials needed for the project?**

A27: Successful bidder is required to purchase all material needed for this project. Per IFB Part 7, General Conditions, GC-42, Source of Materials on Page 106, "You are completely responsible for locating, identifying, and furnishing all materials required to be furnished under this contract".

**Q28: Per IFB Appendix A, Contract Drawings and Plans sheet L-17, STA 686+00, there is a callout for Concrete Barrier (Type 60P) but when you reference back to the stage construction drawings, there is no Temporary Barrier or staging plans. How do you propose to construct this barrier?**

A28: See Addendum #2, Item #16, Contracts Drawings and Plans, Replaced Project Plan Sheets 207 – 209, 273, and 274. Traffic Handling Plans are revised to show K-rail for concrete barrier (type 60P) installation at station 686+00 and station 701+00.

**Q29: What are the traffic control requirements for general contractors?**

A29: The Civil Contractor is responsible for traffic control to complete the Civil contract as shown on the contract plans.

**Q30: Is the contractor responsible for traffic control to support TSI? What support is the contractor responsible to provide the TSI?**

A30: Civil Contractor is not responsible for traffic control to support TSI. Civil Contractor does not need to support TSI contractor but will need to coordinate the Civil work with TSI work.

**Q31: Who is responsible for outside source inspection (ex. Welding, Sign Fabrication)?**

A31: See IFB Part 7, General Conditions, GC-48, Inspection, on page 107. BAIFA is responsible for source inspection. The contractor is responsible for quality control.

**Q32: Who is the TSI? Can you provide contact information?**

A32: TSI (Toll System Integrator) is a separate contract. Contact information will be provided once the Civil Contract is awarded.

**Q33: Does the time allotted for Department review include Caltrans Materials Engineering and Testing (METs) review time?**

A33: Yes. See IFB, Part 6, Special Conditions, SC 6.5 – Time for Submittal, page 68.



**Q34: Since the project has disturbed soil more than 1 acre because of the Aerially Deposited Lead (ADL) and construction excavations and the Section 6 of the Storm Water Data Report (SWDR) required Storm Water Pollution Prevention Plan (SWPPP) during construction, why this project is a Water Pollution Control Program (WPCP) not a SWPPP project? Will there be any landscaping area?**

A34: The Disturbed Soil Area (DSA) for the project is 0.72 acres which is shown on the first page of the SWDR. Since DSA is less than 1 acre, this project is a WPCP. Section 6 of the Storm Water Data Report (SWDR) provided as a Supplemental Document required SWPPP during construction in error. A revised SWDR is provided to Bidders as a Supplemental Document found at <http://bids.mtc.ca.gov/procurements/198/edit>, see page 11 of the revised report which now correctly indicates the project as a WPCP project.

**Q35: Do the contractors have to do all the layouts and staking? What is the bid item for this work?**

A35: See IFB, Part 10, Construction Details, Division I, General Provisions, Section 5, subsection "Replace section 5-1.26" on page 135. Contractor is responsible for surveying. Surveying is included in the items of work and there is no separate pay item.

**Q36: IFB Addendum No. 1, dated May 19, 2015, added a considerable amount of work, are you considering extending the milestone dates?**

A36: No time will be added. Work needs to be done in a separate operation and the first work performed. IFB Addendum No. 1, dated May 19, 2015, states "The first order of work must be to install the conduit and pull boxes for the backhaul communications work as shown".

**Q37: How are the sign procurement timeframes and potential schedule impacts accounted for in the work schedule and milestones days?**

A37: Procurement timeframes were accounted for in milestone due dates.